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SPECIAL ARTICLE

THE STATUS OF NEUROLOGICAL SURGERY—TODAY AND TOMORROW

By HOWARD C. NAFFZIGER, M. D., *San Francisco*

SURGERY of the nervous system, although one of the newer recognized specialties of medicine, already has made many valuable contributions to medicine, and has accumulated a large amount of literature.

Not every physician has the desire or the training to do neurological surgery, but there is much being done by special students of the subject of great value to all physicians.

It was with the object of bringing out the important developments in the specialty, and particularly the newer knowledge of value to all physicians, that Doctor Naffziger was invited to prepare this essay.—EDITOR.

NEUROLOGICAL surgery has emerged from its infancy to the age where it now makes more than a feeble outcry. Up to the time of the great war, it attracted the attention of but few surgeons. Since that time, and largely due to the experiences obtained in the war, an increasingly large number of well-trained men have devoted their attentions exclusively to it. In a considerable number of medical schools it has assumed its place as one of the major divisions of surgery. A large literature has grown up and a national society has been formed which is composed of men whose major interest is in this field. In this country particularly, the advances in this specialty during the past fifteen years have been remarkably great. These advances have been largely along physiological, diagnostic, and technical lines. It may be of interest to the physician who is not devoting particular attention to this field to review some of the particular conditions and the considerations involved in diagnosis, treatment, and results. It seems safe to prophesy that the next decade will show remarkable advances in many of these lines.

INTRACRANIAL TUMORS

The physician, in thinking of the specialty of neurological surgery, is prone to think of brain tumors as being the particular condition most often seen. It is true that intracranial neoplasms represent the greatest problem in this field, and the most difficult conditions met. Of all organs, the brain, breast, and uterus rank together as common sites for tumors. In the whole range of cranial surgery, however, tumors represent only a part. Recognition of them occurs very much earlier than was the case a comparatively few years ago. During the past two years, at the University of California Hospital, not more than one or two patients have been received who were totally blind at the time of admission. This is a marked contrast to the numerous cases of total blindness common only a few years ago. It is not practicable here to go into a consideration of the various types of tumor pathology which are encountered. There is no pathological classification in general acceptance. It is sufficient here to consider intracranial tumors in two classes, the infiltrating growths, which are principally the gliomas, and the encapsulated growths. In the latter class one thinks particularly of the so-called dural endotheliomas (arachnoid fibroblastomata), the pituitary tumors and the tumors of the cerebellopontile angle. In a strict sense these are intracranial, but not cerebral.

GLIOMATA

The infiltrating growths are numerous, and the gliomas represent nearly one-half of the total number of the tumors. They constitute the most trying group, from the standpoint of both the patient and the surgeon. They are rapid in their progress and, being usually of the infiltrating type, are completely enucleable in only a few instances. Occasionally, radical resection can be performed. Under the gliomas may be included the gliomatous cysts and the cystic gliomas. The cystic change in gliomas is a favorable occurrence. It alters an apparently extremely serious outlook to one which is less grave, and is compatible with continued economic usefulness of the individual and a more or less indefinite span of life. It has not been long since the rather frequent cerebellar gliomas in children were considered a cause for deepest pessimism. A consideration of the results obtained in these cases, however, indicates that a considerable percentage of them, perhaps 20 per cent or thereabouts, pursue a favorable course after pressure effects are relieved at operation. In them the growth becomes entirely stationary, or so slightly progressive that

it seems stationary or a cystic change occurs. Freedom from symptoms over a three or five-year period is common.

PITUITARY TUMORS

The pituitary tumors are being recognized earlier, largely due to the interest and care of the ophthalmologist in carefully taking the fields of vision. Great strides have been made along technical lines in the handling of these conditions. Two main types of operative treatment have developed, namely, the transphenoidal route from below, and the superior route through a frontal or a temporoparietal flap. The superior routes are, of course, the only ones practicable for the supra-sellar tumors, which are fairly common. In recent years there has been a considerable tendency for most neurological surgeons to favor this route also for the pituitary adenomata. It must be said, however, that there are but few operations in neurological surgery which give more satisfactory results than the transphenoidal operation in suitable cases. Those cases with more or less uniform enlargement of the sella and with no other neighborhood signs than defects in the fields of vision of one type or another are the ones usually selected. It is not unusual, however, for this operation to entirely relieve eye-muscle palsies which appear with the enlarging growth. These tumors are of slow development, and the relief obtained is immediate. Many of these cases have been followed post-operatively over a considerable number of years, without a return of any of their symptoms. One of the keenest pleasures is to witness the return of vision and the disappearance of hemianopsias. It is probably not generally appreciated that most individuals with pituitary tumors do not have acromegaly. The acromegalics are in a decided minority. The mortality from transphenoidal operations is low, certainly not more than 10 per cent,[1] and almost without exception post-operative convalescence is easy and rapid. The operative procedure itself places but very little tax on a weakened patient. All patients show the readily recognized signs of an enlarged sella turcica, as shown by the x-ray, and defects in the perimetric fields of vision which usually, at one stage or another, are of a bitemporal type. It is not uncommon, however, for homonymous hemianopsia to be found. The signs of disorder of the ductless glands, while usually present, are seldom the outstanding features of the case or the ones which bring the patient to the physician. Where the tumor has spread far above the diaphragm of the sella, as shown by marked effects on the third and sixth nerves or by pressure on one or another crus, operation by the superior route is necessary. This procedure, of course, permits of a more radical removal of the tumor, but is accompanied by an increased risk over the inferior route. It seems likely that with increasingly early recognition of the pituitary strumas, that the usefulness of the transphenoidal operation will be increased and the necessity for any other more formidable procedure thereby reduced.

ENDOTHELIOMAS

The dural endotheliomas or the arachnoid fibroblastomas, as they are more correctly termed, are among the most favorable types of intracranial tumor. It is not generally enough appreciated, and probably this is due to the unfortunate use of the term endothelioma, that these tumors are circumscribed, do not metastasize and do not recur after complete removal with a reasonable margin of the membranes from which they spring. Moreover, they are of slow growth, usually giving a history of years, and are most common over the vault and on the surface where they are accessible. The brain seems to stand slowly increasing pressure in an astonishing manner and even enormous growths, as one in our series, the size of an orange and weighing 220 grams, may be found without any manifestations of intracranial pressure, such as headaches or choked discs. Indeed they often cause so little disturbance that they may not be recognized until in some late stage they may so interfere with the cerebrospinal fluid pathways as to cause intracranial pressure. The late invasion of the overlying bones of the skull by these neoplasms and the recognition by the patient of a lump on his head as the first sign of tumor is well known.

TUMORS OF THE CEREBELLOPONTILE REGION

Of the tumors of the cerebellopontile angle, the acoustic tumors come first to mind, although this is not an uncommon location for endotheliomas as well as other types of new growth. In the recognition of acoustic tumors, their very slow growth is a characteristic feature and the chronological signs of tinnitus and deafness as the eighth nerve is increasingly involved, followed later by signs indicating pressure upon neighboring structures. Those most commonly involved are the fifth nerve with parasthesiae, numbness, and disorders of the sense of taste and of the seventh nerve with weakness or irritative signs. Pressure on the cerebellum is shown by faults in co-ordination on the same side of the body. In a large percentage of these patients some or all of these symptoms are present without the so-called classical signs of brain tumor, which are, of course, only signs of general rise in intracranial pressure, namely: headache, choked discs, and vomiting. By operation, relief from such pressure signs can be obtained. Complete removal of the growth can occasionally be accomplished. In the remaining ones, partial intracapsular enucleation is done.

Many of the tumors originating within the skull which are overlooked would be recognized, were one to always think of a tumor when they are dealing with any localized, but progressing lesion. Swelling of the optic discs as an indication of intracranial pressure from one cause or another, is widely appreciated. This one sign, whether it comes under the name of papillitis or choked disc, stands out as the most trustworthy and common sign of intracranial pressure. Sufficient experience with the ophthalmoscope to enable one to recognize this condition would save most of these cases from total blindness. Methods of localization of tumors as an aid to clinical neurology have received considerable attention.

DIAGNOSTIC AIDS IN LOCALIZATION

Pneumoventriculography, as introduced by Dandy, has received considerable attention, and is an unquestioned aid in the localization of tumors. It is a method, which, from the reports in the literature, involves a considerable degree of risk, but it is granted that the conditions for which it is done are ones which warrant taking such measures. Ventriculograms have been used in about eighty-five instances in this clinic. One fatality occurred after this procedure, but was due to a late hemorrhage. This procedure has added considerably to our diagnostic ability, but has not given a corresponding gain in the complete removal of tumors such as might be expected. The percentage of tumors which cannot be localized by methods of clinical examination alone has been variously estimated, and no accurate figures upon it are obtainable. It has been placed as high as 50 per cent (Dandy). It is probable that in 20 or 25 per cent an accurate localizing diagnosis cannot be made within a reasonable time without some other aid.

DISPLACEMENT OF THE PINEAL SHADOW

The following procedure, which has been developed in this clinic, is being published elsewhere. It has been of very real value and it involves no risks. In a large percentage of individuals, the pineal gland calcifies under normal conditions. In the lateral radiograms of the skull it is frequently seen. It is developmentally a true midline structure. When radiograms are properly taken in the anteroposterior position it can be determined whether this shadow lies exactly in the midsagittal plane or not. In cases with intracranial pressure, the shifting of the position of this gland can be utilized to great advantage. Any gross lesion associated with an increase in volume in the right cerebral hemisphere will cause this midline structure to shift, and the pineal shadow will be shown to the left of the midline. Likewise a shift to the right occurs with the gross lesion on the left side. When, however, there is a uniform rise of pressure within the skull due to a posterior fossa lesion or one at the base obstructing the cerebrospinal fluid pathways, there is an internal hydrocephalus. The dilatation of the two lateral ventricles is approximately symmetrical, and so in this instance the pineal retains its true midline position. Given an individual suffering from intracranial pressure, after the pineal gland is calcified, one is able to say whether he is dealing with a right cerebral or a left cerebral lesion or an internal hydrocephalus. This simple procedure greatly widens the diagnosis by x-ray and sufficiently localizes many of the otherwise unlocalizable lesions.

THE SPINAL CORD—DIAGNOSTIC AIDS

In the surgery of the spinal cord, several notable additions to our knowledge have occurred within recent years. It has not been so long since Sir Victor Horsley's first successful removal of a spinal cord tumor, in 1888.[2] Spinal cord tumors offer some of the most brilliant results seen in any field of surgery. Fortunately, most of these growths are benign. In the diagnosis of spinal cord compression in the absence of xanthochromia, Ayer's procedure of combined cistern and lumbar puncture has brought great certainty to our diagnosis. Combined puncture of the posterior cistern through the occipito-atlantoid region, if carefully performed, carries but very little risk, and with spinal puncture affords a ready index of the freedom of movement of the cerebrospinal fluid up and down the spinal canal. Alterations in pressure adjustments between these two levels, as shown by manometers attached to the two needles, gives striking evidence. Indeed, since, and because of the knowledge gained from the combined puncture, we are now in a position to obtain much more information from spinal puncture alone. It requires but little experience to note the rapidity with which changes in pressure occur in a manometer attached to a lumbar needle when the patient coughs or strains. Pressure upon the jugulars likewise shows a rapid change in the spinal pressure under normal conditions. Quantitative chemistry of the fluid obtained by cistern puncture, as contrasted with spinal puncture, gives added information. These diagnostic measures give reliable information as to whether there is or is not blockage of the spinal canal. For purposes of locating the level of the lesion, the use of lipiodol should be mentioned. This liquid, a combination of iodin in oil, is slightly heavier than cerebro-spinal fluid and upon introduction into the spinal canal, either by cistern or lumbar puncture, will gravitate to the level of the obstruction with the patient in the proper position, and the presence of the solution at this level will be shown by the x-ray shadow. It has been of value in giving accurate localization when a block is present. Its value is doubtful if no block can first be demonstrated.

CORDOTOMY

For the relief of intractable pain below the level of the upper extremities, cordotomy, or section of the anterolateral tracts of the spinal cord, as recommended by Spiller and Fraser, has come into use. While the applications for it are limited, it adds to our usefulness in certain most distressing conditions. In certain instances where the lease of life of the patient is manifestly short, it may be unwise to resort to a major operative procedure such as this.

ALCOHOL INJECTION

One will occasionally meet with such hopeless conditions as a complete paraplegia from metastatic malignancy to the spine, with terrific pain. When paraplegia is already complete, we have advised the injection of a small amount of absolute alcohol directly into the cord substance, by spinal puncture, just above the level of the lesion. The usefulness of such a procedure is, of course, very limited, but may serve an excellent purpose occasionally.

TIC DOULOUREAUX

Certain neuralgias often demand the attention of the surgeon. Of these, the outstanding one, because of its frequency and severity, is tic douloureux. The diagnosis of this condition is usually simple. The pain most often first appears in the second or third divisions of the fifth nerve, later spreading to the first. Intermissions of months, or even years, are common. The characteristic pain is a terrific lanci-

nating, paroxysmal one of a few moments' duration which leaves the patient fearful and shaken, but entirely free from pain until the next one. There is rarely any continuous pain. Various types, which are comparatively infrequent, but which simulate true tic, have been described by Cushing. The group characterized by pain of this type plus marked contraction in the facial muscles of the same side is of most interest. These are not relieved by the measures which stop the pain in true tic. In true tic douloureux, alcohol injection of the second and third divisions of the nerve, and perhaps also of the supra-orbital branch, gives satisfactory, though temporary, relief and, in addition, confirms our diagnosis by showing that blocking of the nerve impulses will give relief. Neurectomies, when applicable, are of the same, but temporary value. It is, of course, a familiar experience to find that numerous other types of pain over the distribution of the fifth nerve area are not relieved by such a procedure. It seems worth while to emphasize the fact that operation, namely, section of the sensory root of the Gasserian ganglion, offers the only permanent relief in true tic douloureux. It does not seem to be widely known that properly conducted operations involve very slight risk, probably not more than 2 per cent. There are few of the major conditions in surgery in which relief is so necessary and in which the risk is so slight.

It seems unfortunate that there is not more familiarity with the clinical picture of this disease and the favorable results of treatment. The character of the pain is usually so distinctive that if it were more generally recognized much preliminary work would be saved. It is a rule for the patients to come after the extraction of all of their teeth and frequently with numerous operations upon the accessory sinuses, all of these things being done in a vain search for the cause of the trouble. There is likewise considerable misinformation as to the aftermath of the operation. The idea seems to be prevalent that facial paralysis and marked deformities are the rule. Facial paralysis is an infrequent complication and as far as we know is never permanent. The reason for its occurrence in occasional instances is not well understood.

OTHER FACIAL NEURALGIAS

Certain other types of facial pain seem to be associated with disturbances in the sympathetic system. Certain painful paresthesiae over the face are relieved by resection of the superior cervical sympathetic trunk.

Glossopharyngeal neuralgia, which is similar in character to tic douloureux, but in which the pain is referred largely to the throat in the region of the faucial pillars and to the ear is a condition less often encountered. It has been emphasized by certain of the French writers, and more recently by Doyle, Lillie, and Adson of the Mayo Clinic [3] in this country. Its diagnosis can usually be made certain by the relief obtained by cocainizing the tonsillar fossa. Relief may be obtained by extracranial avulsion of the nerve or more permanent relief by intracranial section of it.

HYDROCEPHALUS

The treatment of hydrocephalus of infants or of the spinal deformities of infants associated with hydrocephalus still furnishes some of the most difficult problems. In certain types of hydrocephalus, the obstruction to the flow of cerebrospinal fluid may be localized and relieved. In a larger number the process is arrested.

HEAD INJURIES

In the treatment of head injuries, after reviewing the writings of surgeons early in the eighteenth century, and even before this time, one is inclined to feel that but little of value has been added to our knowledge of treatment. In the treatment of fractures of the skull with associated brain damage, the pendulum has swung from time to time from extreme conservatism to radical treatment, such as decompression for all, or nearly all. It seems to be the feeling of a considerable number of the conservative neurological surgeons today that the cases requiring operation are very decidedly in the minority. In the hands of those who are doing most of this work, the percentage of cases operated upon varies between 10 and 25 per cent. The basis of judgment for the cases needing operation is made not only upon the signs of pressure which are present, but upon whether or not they are progressing. The classical signs of acute intracranial pressure are well known. The most reliable ones are slow pulse, increased pulse pressure, and increasing stupor. These signs, however, are the ones presented by a normal brain which is reacting to pressure. The responses of a brain traumatized to various degrees and in various locations are bizarre. They do not always follow this clear-cut picture. It is in these cases that judgment is most difficult. These well-known signs, however, along with such aids as direct measurement of the spinal fluid pressure and observation of the eyegrounds in the more protracted cases, are helpful. In the acute traumatic cases, increased intracranial pressure is always due to an increased fluid content within the skull. This fluid may be present in the form of blood or an increase in cerebrospinal fluid, or through tissue edema resulting from the swelling of the contused brain. It is only by the removal of fluid that pressure can be relieved. The drainage of fluid by one route or another is the aim in any treatment. A decompressive operation which does not drain is usually ineffective. In addition to the removal of blood-clots and of subdural fluid accumulations [4] by drainage through a small decompressive opening, there are other simpler methods which are of value. With large accumulations of free fluid, frequent spinal punctures are used. In true tissue edema, little or nothing is accomplished by such a procedure. The intravenous administration of hypertonic solutions of sodium chloride or Ringer's solution or the administration through the gastro-intestinal tract of magnesium sulphate, supplies other strings to the bow.

INJURY OF THE SPINAL CORD

Injuries of the spinal cord, with paraplegia or quadraplegia, are perhaps the most serious traumatic conditions with which one meets. There is the same

wide variation of opinion in regard to their treatment. Certainly, one can look back upon but few who have definitely been benefited by surgery. Injuries to the contents of the spinal canal below the level of the first lumbar vertebra are among the very favorable ones, and if taken in time much may be accomplished. All injuries of the cauda equina sufficient to give neurological findings below this level merit operative treatment. With the more common injuries just above this level, particularly those at the dorsolumbar junction, one is dealing often with a combined injury of the cord at the conus and an injury of obliquely placed fibers which go to make up the cauda equina. Often in these, little or nothing is accomplished with the cord injury. With the nerves going to the cauda equina, however, it may be possible to afford relief so that there is return of function through those which have their origin from a higher segment and yet are compressed at this point. A return of ability, even to flex the thighs, is of inestimable value to the individuals who are doomed to a hopeless paraplegia. It permits them to sit and even to carry on a certain amount of work. There seems to be no unanimity of opinion, or indeed any greater weight of opinion on one side or the other when comparing the advantages of operative against conservative treatment in injuries to the cord at a higher level. In the early stages it is usually impossible to differentiate between a complete physiological block and an anatomical interruption of the cord. Paralysis from continuing bone pressure is a popular idea with but little to support it. It is probable that the cord injury is an immediate destruction rather than one brought about by the continued pressure. Consequently, little can be expected in the way of operative relief. Compressions from blood clot are likewise unusual, and a suggestion of their presence can usually be obtained by spinal puncture. It frequently happens at operation, even in the presence of a complete paraplegia or quadraplegia, that the cord at the level of the injury appears normal to a casual examination. A small incision, however, into the dorsal columns of such a cord often shows that the entire gray matter is so pulped that it extrudes as a granular tan colored material. Injuries of the cord localized to a comparatively small area are sometimes seen. In these, the evacuation of devitalized material probably allows a greater degree of recovery. Even though most of the explorations are futile and discouragements are the rule, we feel that there are occasional, though rare, unquestioned benefits. A fair number of patients with cord injuries live for long periods. Existences under such conditions would no doubt make all of us wish that we had accepted any chance of benefit, however small. Lack of operative investigation in these patients usually becomes a life-long regret with them when complete paralysis persists.

BIRTH INJURIES

The birth injuries which have resulted in Little's disease or the cerebral spastics of one type or another, are a constant problem. In a few of them early operations are of enormous benefit. In the older children these conditions, many of them hopeless, have been a fertile field for exploitations. Rarely at a late stage can they be benefited by any cerebral operation. Their lesions are destructive and developmental ones. In occasional instances where the process is well localized and where the spasticity has been increasing, or convulsive attacks have appeared, operative intervention may be advisable. Of work, that which has created the most interest is that of Drs. Royle and Hunter of Australia.[5] It seems as yet too early to offer an opinion as to the final status of the procedures which are adopted by Royle, namely, sympathetic ramisection. The cases adaptable to this procedure are limited in number. It is not invariably easy to select them wisely. The operation can be applied only to those in whom a considerable degree of voluntary power is present. Royle's operation has provoked much comment, both favorable and unfavorable. There can be no doubt, however, but that certain very definite results are noted and that in certain of the cases, the procedure has been a decided advantage. It is an operation which permits such voluntary power as is present to be used, but it does not restore voluntary power.

PERIPHERAL NERVES

The surgery of peripheral nerves probably received more of an accretion to our knowledge from the experiences in the great war than any other phase of the surgery of the nervous system. It brought general appreciation of the fact that end-to-end suture of the nerves, without the aid of extraneous substances, was not only the ideal procedure, but was really the only worthwhile one. Autografts or homografts, while they are of great experimental interest and do permit of regeneration through them, do not add sufficiently to the functional improvement to make them worth while. The importance of early exploration and early nerve suture in doubtful cases was one of the most useful lessons. The long waits to determine whether or not regeneration is occurring have been disastrous and have removed the last chance for the patient to gain anything like a satisfactory result. It is probably not so much that regeneration will not occur when suture is performed late, but that the motor apparatus will no longer be in condition and cannot be kept in condition to receive it. While the importance of physiotherapy to prevent the stiffening of joints and proper splinting to prevent overstretching of the muscles were of great value, it became obvious, on the other hand, that the time-honored electrical treatments and massage of muscle bellies did nothing to either hasten recovery or augment it. The experimental research of McLeod and his co-workers at Toronto entirely explodes the idea so long held of the usefulness of faradic and galvanic treatment of the paralyzed muscles.

The scope of neurological surgery permits that mention only can be made of these varied conditions.

Steady advancement on the amelioration or cure of numerous other conditions can but be mentioned. The difficulties in the treatment of brain abscess and how to meet them have received a great share of attention, the amelioration and cure of certain cases of meningitis have all been advances in the handling of acute infections of the central nervous system.

Peripheral nerve surgery in civil life has received attention in the lessening of certain forms of spasticities, in, nerve sutures for facial palsy and for palsy of the recurrent laryngeal nerve.

Cervical operations upon the phrenic for intractable hiccough and for immobilization of the diaphragm in pulmonary tuberculosis are receiving consideration.

Resection of the various portions of the cervical sympathetic system or the pain in angina pectoris has been followed in numerous instances by striking relief. It is easily performed under local anesthesia. We have seen patients return to work after long periods of distress and incapacity. It is recognized that such a procedure can have no curative effect on the underlying pathology. Notwithstanding this, the measure of relief has been great enough so that the patients consider it highly satisfactory.

EPILEPSY

Mention should be made of the epilepsies. Certain of the focal epilepsies have a surgical lesion as their basis, and demand surgical attention. In the more common general convulsive states, the convulsions are but a single manifestation of a widespread brain affection. The immediate basis for the convulsions, whether it be circulatory, chemical or from some other cause, is as yet unknown. In such conditions the extreme plight of the patient supplies a field for the overenthusiastic operator. Some epileptics are said to have remained free from convulsions after having had their skulls fractured. Such operators may act only in the role of the traumatizing agents. In the present state of knowledge of the subject, our energies can best be directed toward a solution of the problem rather than to misguided surgical attempts to cure convulsions.

The range of neurological surgery has so widened, and the impetus in its advancement is so great, that the next decade should show many brilliant accomplishments.

The requirements in diagnosis, the character of preparation for such work and the technical procedures themselves are such as to merit specialization in this field. Men interested in it may question the advisability of selecting it on the score that it is too limited. Probably this has always seemed true in contemplating limitation to any specialty. The greater the number of well-trained individuals interested in the same problems, the greater will be the amount of work and the progress in it.

380 Post Street.

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SURGICAL TREATMENT OF DISEASES OF THE COLON

By C. E. PHILLIPS, M. D., *Los Angeles, Calif.*

I believe we can say that the cecostomy performed in the manner outlined furnishes us one of the best possible means of treatment of many of the severe pathologic conditions of the large intestine, sigmoid and rectum, because it allows us to treat them on the sound surgical principles of rest and cleanliness.

DISCUSSION *by A. B. Cooke, Los Angeles; Emmet Rixford, San Francisco; George K. Knapp, St. Helena Sanitarium; Frank H. Paterson, Santa Ana; M. S. Woolf, San Francisco; Rea Smith, Los Angeles.*

THE colon is an organ for absorption and a receptacle for waste. This dual function requires it to be resistant to the most virulent catabolic poisons and at the same time allow the products of digestion to pass readily. The limiting wall which stands between the living organism on one hand and substances capable of destroying it on the other, is the mucosa. In a state of health it permits the passage of water and nourishment, but obstructs the passage of the common substances deleterious to the organism. Certain accidents of nature occur which alter or destroy this function, and a diseased condition results. We may say, roughly, the severity of the disease depends on the disproportion existing between the pathologic factor on one hand, and the tissue resistance on the other.

The etiology of diseases of the colon can be divided into two general classes: predisposing and exciting. Certain conditions arise which predispose to colonic diseases. Many of these bring it about in a twofold way: (1) By lowering the resistance, and (2) by increasing the virulence of the attacking organism.

Probably the first predisposing factor that should be mentioned is stasis. The second is toxins arising from improper food, faulty digestion or decomposition. The third is systemic diseases interfering with the normal process of absorption and elimination. The fourth, anatomic anomalies, malformations, and distortions.

The exciting causes we may classify in order of their importance: First, bacterial and protozoic infections of the colon. Second, animal parasites. Third, catabolic poisons. Fourth, inflammations and new growths extending from adjacent structures.

PATHOLOGY

(It is not the author's intention to take up the subject of pathology of colitis except in a very general way.)

Pathologic conditions of the colon may attain any degree of severity, from a simple inflammatory condition which will recover spontaneously to a fulminating process leading to extensive destruction. When the latter takes place the faculty of tissue repair is lowered. Healing takes place, if at all, with the formation of scar tissue. First, this causes deformities by contraction and interferes with the normal function of the bowel. Second, the scar tissue does not possess the non-abrasive or the non-corrosive faculty of the normal membrane.

The result is that extensive ulceration heals with great difficulty, and when healing does take place

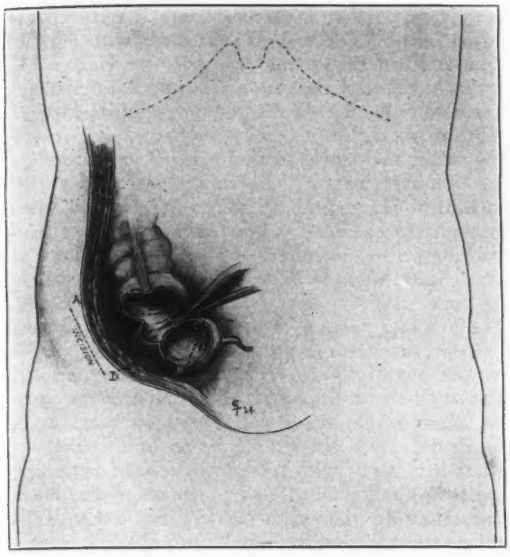

Figure 1.—Shows diagrammatically the position of the ileocecal valve, the caput coli, the appendix, and the part of the cecum (c-b) which is to be stitched to the abdominal wall at (a-d).

recurrences of ulceration are common. Lesions of the bowel may assume almost any form. Perforation from infection is very rare. We can roughly state the greater the destruction the more serious the condition. Hence, our effort should be to prevent extensive damage rather than repair extensive lesions after they have formed.

DIAGNOSIS

To determine the cause of the trouble is not sufficient. We must also ascertain the severity, progress, duration, and extent, before we can intelligently decide upon the treatment to be employed. There are certain aids in diagnosis which must not be overlooked. A careful physical examination, noting the systemic effects of the infection or growths; the x-ray; the proctoscope or sigmoidoscope; the laboratory examination of the excreta and serological tests, are the usual. In some patients an exploratory incision is advisable. From whatever cause the disease arises, a careful and exhaustive study should be made. An early and complete diagnosis must be made if the patient is to receive the maximum benefit from the type of treatment selected.

PROGNOSIS

Prognosis will depend upon: First, condition at institution of treatment. Second, the kind of treatment employed. No line of treatment will restore a colon whose mucosa has been extensively destroyed and from which destruction cicatrices and deformities have resulted. Even the most malignant infection, if treated early by the application of physiologic rest and surgical cleanliness, may be cured without sequellae. We should no more temporize with a destructive lesion of the colon than with a similar condition of the appendix or gall-bladder. While the immediate dangers are not so great in the former, yet if a large number were carefully analyzed, the average morbidity in the severe colitis cases would exceed that of a like number in appendicitis or cholecystitis.

TREATMENT

The difficulty of treating diseases of the colon is apparent. The multiplicity of remedies implies their inefficiency. The two prime essentials for the treatment of infection anywhere are rest and cleanliness. The two prime essentials for treatment of colonic diseases are the same. The difficulty in attaining these conditions renders their application inadvisable except in those cases where failure to employ them may lead to disaster.

By medication and irrigation, direct treatment to the colon is carried out and drugs produce relative rest. Yet the impossibility of relative cleanliness without sidetracking the bowel is evident to all. Without freeing the bowel of irritating contents, rest is not always desirable. The urgency of treatment that will arrest disease process before irreparable injury has been done, is likewise self-evident. Under no circumstances should a patient be taken to surgery when satisfactory healing will take place by simpler means. On the other hand, a patient should not be permitted to reach a state where irreparable damage has been done without recourse to this means.

Let us lay down some general rules where surgery is indicated: (a) *Acute infections* of the colon which have not responded to the usual line of medical treatment and where the continuance of the disease threatens the life of the patient. (b) *Chronic infections* of the colon which have not responded to the usual treatment and which are so severe that a continuance may lead to stricture, malignancy or a serious interference with the general health. (c) *In neoplasms* of the intestine, where it is essential to prevent irritation by diverting the intestinal contents. (d) Where operative work on the large bowel is contemplated, a sidetrack is frequently desirable.

In contemplating an operation of this kind, we must take into consideration certain factors: The first is danger: The operation I shall describe is simple, can be done in case of necessity with a local anesthetic, requires but little time in its performance, and per se should have practically no mortality rate. The second is disability: While the patient with a cecostomy is not confined to bed, to the house, or prevented from attending to light business, yet its employment is sufficiently unpleasant to contra-indicate its use except under certain conditions. The third is nutrition: Nutrition is not seriously affected by sidetracking the entire large bowel. With a careful regulation of diet there is comparatively little inconvenience and even a rapid gain in weight may take place. The fourth is repair: A restoration of the continuity of the bowel is effected with ease when healing has taken place.

OPERATION

The site of operation is in the right iliac region. The object is the temporary sidetracking of the entire lower bowel. An incision is made through the skin as in the McBurney incision for appendectomy. The muscle fibers of the external oblique must be

Figure 2.—Shows the selected portion of the caput coli and appendix, presenting through the abdominal wound: the ascending colon is fixed to the abdominal wall by a stitch to prevent a prolapse of the ascending colon and thus interfering with the protrusion of the ileocecal valve. The presenting portion of the cecum is grasped by forceps and the distal portion is to be excised.

more than separated. They must be cut obliquely so that a stricture will not form about the intestine when the partial prolapse occurs. The fibers of the internal oblique and transversalis are cut transversely, or, in other words, the oblique incision is carried through all the layers of the abdomen and extends for a distance of about two and one-half inches. The head of the cecum is brought up, and the portion selected for the opening is just opposite the ileocecal valve, starting about one-half inch from it and continuing around the end of the cecum for a distance of about two inches (Fig. 1). This portion of the cecum includes the appendix and longitudinal band extending to the appendix from the ileocecal valve. The parietal peritoneum is stitched to the visceral peritoneum allowing a fold of the cecum about two and one-half inches longitudinally and one and one-half inches vertically to show, including the appendix. This suture approximates the parietal and visceral layers of the peritoneum. It is put in carefully and must prevent leakage. Before the peritoneum is closed completely, another stitch is applied at the upper angle of the incision fixing the longitudinal band to the parietal peritoneum above the incision (Fig. 3), so that when the partial prolapse of the bowel occurs, the ilio-cecal valve will evert rather than the proximal part of the cecum. The closure of the peritoneum is then completed. The exposed part of the bowel (two inches in length and including the base of the appendix and wide enough to include the entire thickness of the intestinal wall), is grasped with a clamp (Fig. 2). A few stitches are taken to approximate the muscles and fascia to the bowel proximal to the bite of the clamp. Two or three mattress sutures are inserted through the skin and muscular layers approximating them to the cecum. The constricted portion is excised distal to the clamp, so that when the clamp is removed the bowel opens. The wound is covered with petrolatum, and a dressing is applied over the clamp. On the following day the clamp is removed. The bowel opens immediately. Fluffed gauze dressings changed frequently take care of the discharge. There follows a slight prolapse of the ileocecal valve through the opening (Fig. 3). Stitching the cecum to the parietal peritoneum above brings the ileocecal valve through the opening, and we have a complete sidetracking of the entire large bowel. This prolapse of the ileocecal valve remains and thus cuts off entirely the fecal matter passing through the large bowel. The prolapse never exceeds the distance of an inch or so because the mass of the cecum is too great to extrude out of the rather small muscular opening. The small size and sphincter-like action of the opening likewise prevents a continuous discharge from the ileum. By a proper regulation of the diet, restriction to foods with small residue, and by taking liquids in small amounts at frequent intervals, bowel evacuations are limited to two or three a day. Irrigations and treatments to the large bowel can be carried on by flushing either from above or below. Flushing from below and having the flow come out the cecostomy opening lessens peristaltic action, thereby affording more complete rest. After trying various medicinal irrigations, we come to the conclusion that rest is by far the most important agent in practically all conditions requiring the operation. In the acute cases, continuous irrigations through the rectum will tide over many who would otherwise succumb to toxemia. Ulcerative conditions will heal most readily with rest and an occasional mechanical cleansing by flushing with plain water. With the patient relatively comfortable, a colostomy bag is applied which permits getting about in a fairly normal manner. The cecostomy is allowed to remain functioning until complete recovery or maximum improvement of the bowel has taken place. When we are satisfied, after careful examination, that healing is complete or maximum improvement has taken place, the continuity of the bowel is reestablished.

CLOSURE

Anesthesia—A general or regional, but not local, should be employed. A careful cleansing of the colostomy opening, and of the skin about it, should be first performed. An incision is then made around the prolapsed bowel in the muco-cutaneous junction. The mucosa is liberated just sufficiently to permit suturing the edges with the mucosa inverted. This suture is continuous and put in with sufficient care to insure a tight closure. The suture material is some kind of antiseptic catgut. When the closure is complete the entire wound is thoroughly iodized, and then a debridement is performed by dissecting off all the iodine-stained tissue. Whatever infectious material was in the wound is thus fixed by the iodine, and its removal is insured by the excision. Following this the cecum is freed and the peritoneum opened. The cecum is closed by a second layer of sutures which further folds it in until normal peritoneum only is presenting. The restored cecum is

Figure 3. — Shows diagrammatically the ileocecal valve prolapsed and enlarged through the abdominal wall. The opening into the large intestine is just above the ileocecal valve.

dropped back into its normal habitat and the abdominal wall is closed by layer suture.

In conclusion, I believe we can say that the cecostomy performed in the manner I have outlined furnishes us one of the best possible means of treatment of many of the severe pathologic conditions of the large intestine, sigmoid, and rectum, because it allows us to treat them on the sound surgical principles of rest and cleanliness.

523 West Sixth Street.

DISCUSSION

A. B. Cooke, M. D. (Hollingsworth Building, Los Angeles)—Doctor Phillips' admirable paper directs our attention to an important and much-neglected subject. We are prone to regard affections of the colon as medical maladies, treating them as such oftentimes until damage has been done which even surgery cannot undo. It is undoubtedly true that early resort to the operative treatment described, in properly selected cases, would reduce both morbidity and mortality.

The technique of cecostomy as outlined by the essayist is clear and possesses the virtues of simplicity and efficiency. A feature of the utmost value is that it permits the ready restoration of the bowel continuity when the therapeutic purpose has been served.

I should like to mention the application of this operation in cases of intestinal obstruction. It is always desirable to relieve the obstruction in acute obstructive conditions by opening the gut as far proximal to the site of stenosis as possible, in order that subsequent more radical surgery may be performed in a relatively clean field. Cecostomy offers this advantage whether the causative lesion be located in ascending, transverse, or pelvic colon. I think this is an important point to bear in mind.

Emmet Rixford, M. D. (1795 California Street, San Francisco)—The technique described by Doctor Phillips for cecostomy is ingenious and would appear to have distinct advantages over the operation as ordinarily performed, particularly because, by virtue of prolapse of the ileocecal valve, practically complete drainage of the intestinal contents can be effected.

It is a question whether cecostomy will altogether supplant appendicostomy where it is desired to maintain an opening in the cecum for a long time for irrigating purposes. As a preliminary operation preparatory to removal of the rectum for carcinoma or syphilitic stricture, I believe left inguinal colostomy is preferable in most cases because of the preservation of the colonic function of absorption of fluids, but it must be done with due regard to the amount of the lower bowel which it is proposed to remove.

George Knapp Abbott, M. D. (St. Helena Sanitarium, Calif.) — Those surgeons who have given to surgical science the most lasting contributions have built their methods upon a careful study of normal and pathologic physiology. Nevertheless, experience is such a valuable teacher that one hesitates to express any decided opinion regarding new procedures.

Severe colitis, without ulceration, is so intimately bound up with pathology of other parts, or even with so-called nerve exhaustion, as to render it more largely a symptom or an accompaniment of other disease than a disease *sui generis*. Its cure is usually a matter of the removal of disturbing nervous factors or reflex nerve irritation originating in pathology of the appendix, pelvic adnexa, gallbladder, focal infection, etc. The field for cecostomy would seem to be largely in ulcerative colitis that resists ordinary non-surgical measures. The importance of complete physiologic rest in the treatment of ulceration of hollow viscera has been well demonstrated in the surgical experience with duodenal ulcer. The success of gastroenterostomy depends upon the completeness with which the food current is diverted through the new opening. Severe or extensive ulcerative colitis yield to cecostomy and appendicostomy. Dr. Phillips' careful technic should give the former a recognized place in physiologic surgery.

Frank H. Paterson, M. D. (Walter L. Moore Building, Santa Ana, Calif.)—The value of cecostomy in the presence of such pathologic conditions of the colon as mentioned by Doctor Phillips has been gaining ever-increasing recognition since the work of Weir in 1902, preceded by a decade by the observations of Councilman and Lafleur and the subsequent work of Musgrave and Clegg.

The manifest benefits of this operation (and also appendicostomy) over all other forms of therapy in those intractable amebic infections so frequent among our veterans of the Spanish-American War who had seen service in the Philippines, gave distinct impetus to its employment in other forms of colon disease.

The technic devised by Phillips appears to possess advantages in the consequent position of the ileocecal valve which serves to cut off entirely the passing of fecal matter through the large bowel, thus enhancing the degree of rest to the latter structure which the operation was principally designed to accomplish. A further factor in its favor is that it does not preclude the possibility of irrigating the lower segment of the bowel either from above or below, should this be indicated. The ease of restoration of the gut to approximate its previous anatomic relations constitutes a third favorable element.

A review of a series of appropriately selected cases in which this technic had been utilized should prove a matter of considerable clinical importance.

M. S. Woolf, M. D. (240 Stockton Street, San Francisco)—The procedure of Doctor Phillips for resting and cleansing the large bowel in certain types of colitis should prove a valuable contribution in treatment of this disease. I see many advantages in unloading the ileum by an opening which is large enough to evacuate everything and yet does not permit fecal contents to pass over the ulcerated surfaces. If cecostomy can be done, it will mean that the ileum is not affected and that the cecum itself is not diseased. There are, however, some patients in which both cecum and lower part of the ileum are the seat of ulcers. Before reading Phillips' paper, I was rather inclined to favor an ileostomy to divert the fecal current, but I see no reason why a cecostomy, with a prolapsing ileo-cecal valve, might not do everything that an ileostomy does, if the cecostomy does not involve a dangerous area. In addition, since the appendix may be made to protrude through the same opening as the cecum, one might give appendicostomy a trial before even entering the cecum. Lockhart Mummery favors an appendicostomy in these cases. Since Doctor Phillips read his paper, I have wished to perform his type of operation, but the only case that has come into my hands since that time had such evident signs of in-

flammation about the appendix and cecum that I was obliged to open the ileum.

REA SMITH, M. D. (1136 West Sixth Street, Los Angeles)—The technic of cecostomy as described by Doctor Phillips interests me very much. I have occasionally done a cecostomy in the ordinary way, usually in a hurry to relieve a complete obstruction lower in the colon, to be followed by a secondary operation. Cecostomy has proven a great benefit at the time of the secondary operation in keeping the gas pressure off the stitch-line, but it has been closed with difficulty.

It seems to me that the operation as described by Phillips can be done just as quickly as the ordinary procedure of stitching the cecum into the wound at its presenting point, and it gives a very much better intestinal drainage at the time it is needed, and is more easily closed afterwards. As a means of sidetracking the colon to provide rest in the treatment of ulcerative colitis, it is certainly a more positive procedure than appendicostomy or simple cecostomy, and I shall use it at my first opportunity.

DOCTOR PHILLIPS (closing)—I want to thank the men who have so ably discussed my paper. The operation is not offered as a cure-all for all gastro-intestinal ailments. The indications for its employment are clearly defined. My hope is that the procedure will be given a fair trial in cases where rest, drainage and disinfection of the colon are indicated. I am sure the procedure will be found as satisfactory in the hands of others as it had been in my own.

Simple cecostomy has been employed in certain diseased conditions of the colon for a long time, and it was in performing this operation that I found that some cases automatically sidetracked the large intestine, while in others only a fistulous opening resulted. In an attempt to analyze the results, the present procedure was devised and has proven very satisfactory in a large number of cases.

Morphin: Before and After Operations—A questionnaire sent out by M. A. Slocum, Pittsburgh (Journal A. M. A.), on the use of morphin before and after operations leads to the following conclusions: The surgical profession is distinctly not in accord regarding the use of morphin before and after operations. The reasons given, by surgeons in general, for not using morphin differ widely. It is a curious fact that one group of prominent men condemns morphin as definitely producing unfavorable symptoms, while another group advocates its use because it prevents these very symptoms. This questionnaire clearly establishes the fact that a majority of surgeons are in favor of morphin pre-operatively and post-operatively in practically all cases. At the present time there is less fear of using morphin in surgery than there was twenty years ago. Whether this should be a danger signal or whether it has come about because of advances in knowledge remains to be proved. An attempt should be made to set some sort of standard by which we can be guided in our use of morphin. While it is admitted that it is difficult to standardize the use of drugs in general, it is felt that morphin is of sufficient importance, and in general enough use in surgery, to merit at least a trial toward standardization. There seems to exist a vast field for research, animal and otherwise, in the therapeutics of morphin. It is true that there is a great deal known about the pharmacology of morphin. However, there is little mention in the literature of work done on animals regarding the effects of morphin on the kidneys, circulation, gastro-intestinal tract and respirations.

Needs More Study—Honey is said to contain all the essentials for animal life. The average quantity of water is 17.2 per cent; mineral salts, 0.75 per cent, and protein derived from pollen of plants, 1.8 per cent. The proportion of grape sugar and fruit sugar to the other solid constituents is ten to one. Honey contains 1.1 per cent formic acid and 0.3 per cent of mallic acid and 0.2 per cent of acetic acid. It is possible that honey contains all the vitamines necessary for life; it is the sole food of the bee.—Lancet.

TREATMENT OF CHOLECYSTITIS

By W. W. BOARDMAN, M. D., *San Francisco*
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No rule of thumb methods.

It is not primarily a question of medical as opposed to surgical methods.

Many factors, sociological and medical, have a bearing on the choice of treatment.

DISCUSSION *by Walter C. Alvarez, San Francisco; Wade H. Walker, Long Beach; L. G. Visscher, Los Angeles; Charles D. Lockwood, Pasadena.*

NO procedure as yet devised has given uniformly satisfactory results in the treatment of cholecystitis. As our knowledge of the physiology and pathology of the hepato-biliary system increases, we may anticipate the development of more rational and more successful prophylactic and therapeutic measures, but at present this knowledge is far from complete, and our efforts are, therefore, more or less empirical and unsatisfactory. In order that we may have as clear a conception as possible of our therapeutic problem, it will be well to briefly review some of the more recent additions to our knowledge in this field. First it is essential to bear in mind that the gall-bladder is not an isolated and independent organ, but that it is an integral part of the hepato-biliary system, and that factors influencing one part of the system may, and usually do, influence the remaining parts.

There has been much discussion regarding the function of the gall-bladder, but the work of Mann, Rous, MacMaster, and others has demonstrated that it is not essential to life, that it acts primarily to concentrate and store bile in the interdigestive periods, that it apparently acts to decrease the alkalinity of its contents, that it probably acts as a safety valve in the biliary system allowing rapid equalization of pressures, and that it has a mucous secretion.

It is this ability of the gall-bladder to concentrate the bile rapidly and to about one-tenth of its original volume that enables it, with a normal capacity of 50 cc., to store the large amounts of bile secreted in the interdigestive periods. The secretion of bile is continuous, and varies from 500 to 1500 cc. per day, but the excretion of bile into the duodenum is intermittent, occurring normally only during the digestive periods.

The excretion of bile is controlled by the sphincter of Oddi, which relaxes in response to the stimuli produced by digestive products in the duodenum. The resulting discharge of gall-bladder bile is apparently partially due to an active contraction of the gall-bladder as suggested by Meltzer, and partially to a passive emptying in response to the fall in pressure in the common duct. This emptying of the gall-bladder is always incomplete, so that even under normal conditions there is some gall-bladder stasis which may be greatly increased by various abnormal conditions.

Liver bile is alkaline in reaction, but the recent work of Drury shows that in dogs, rabbits, and from a limited number of observations in man also, the gall-bladder bile is acid-neutral, or very weakly alkaline. This decrease in alkalinity, which seems to be produced by the gall-bladder itself is, from Drury's work, of the utmost importance in preventing the precipitation of cholesterol, calcium carbo-

nate and calcium bilirubinate from a concentrated and static gall-bladder bile.

The secretion and composition of bile is largely dependent upon the composition of the portal blood which brings to the liver cells the products of absorption from the spleen, the stomach, the small intestine, and the proximal half of the large intestine. Bile contains four important groups of substances; the bile pigments, the bile salts, fatty materials, especially cholesterol, and the inorganic salts, especially calcium. The bile pigments are the products of hemoglobin catabolism; the bile salts are of obscure origin; cholesterol is apparently partly derived from certain body tissues and partly from certain foods, especially yolk of eggs, butter, cream, and animal fats. Under certain normal and abnormal conditions, the quantity of one or other of these bile constituents may be increased with a resulting increased tendency for precipitation to occur. As already stated, such precipitation seems normally to be prevented by the decreased alkalinity of the gall-bladder bile.

Infection of the gall-bladder is essentially an infection of the deeper layers of the wall, and not an infection of the mucosa or of the contained bile. The question of the mode of infection of the gall-bladder remains unsettled. Five possible routes have been suggested: 1. Ascending infection from the duodenum. 2. Descending infection from the liver by bacteria carried out in the bile. 3. Hematogenous infection. 4. Spreading infection by chance contact with some inflamed organ. 5. Lymphatic infection from a previously infected liver. The experimental and clinical evidence seems to indicate that the ascending and descending infections are infrequent in previously normal gall-bladders, but may be of considerable importance under abnormal conditions such as occur with stasis from obstruction, stones, or serious injury to the wall of the gall-bladder. The hematogenous route, as especially emphasized by Rosenow, has gained wide acceptance, and is of undoubted importance. Infection by chance contact with inflamed organs is of infrequent occurrence.

Graham and Peterman have recently advocated the lymphatic route from a previously infected liver. They call attention to the intimate lymphatic connection between the right lobe of the liver and the gall-bladder, and have demonstrated the presence of hepatitis in practically all cases of cholecystitis. This latter finding has been confirmed by Judd and others. From their experimental and clinical investigations, they conclude that: "In many cases, probably in a majority, cholecystitis represents a direct extension to the wall of the gall-bladder from a liver already inflamed. The hepatitis usually begins and is most marked in the interlobular or periportal tissues, and it is apparently due to infection brought to the liver by the portal vein, and more rarely perhaps by the hepatic artery. Pericholangitis then occurs, and because of the intimate anastomosis between the lymphatics of the intra-hepatic and extra-hepatic biliary systems, direct extension into the wall of the gall-bladder takes place as well as into the common duct and the pancreas. From the hepatitis, therefore, a cholecystitis, choledochitis, and pancreatitis can be understood to occur, if in the consideration of inflammations in this locality we apply the well-known fact concerning inflammation in general, namely, that it extends by way of the lymphatics. We believe that the ideas expressed in this article explain more readily than any others heretofore offered the frequent and well-recognized association of biliary tract infections with lesions of the portal system (appendicitis, peptic ulcer, typhoid fever, suppurating hemorrhoids, etc.)."

After reviewing the evidence in favor of the various possibilities, it seems apparent that, in the study of the etiology of the individual case, each route must be given due consideration.

Finally, regarding the question of stone formation, we are almost totally lacking definite knowledge. It has been accepted that infection, stagnation of bile and increased concentration of one or more of the bile constituents, especially cholesterol, were apt to lead to stone formation. Of these, infection has been considered of prime importance, although it has been maintained that the single pure cholesterine stone might be formed in the absence of infection. Practically all stones form about a central nucleus believed to consist primarily of organic debris, usually of inflammatory origin, such as the various sediments present in pathological gall-bladders, clumps of bacteria, etc. However, practically none of these ideas have been subjected to experimental proof, and a careful analysis discloses many uncertainties. The recent work of Rous, Drury, and MacMaster seems to promise more definite information. They have demonstrated the possibility of stone formation in dogs in the absence of "influences to which many authors have accorded primary significance, namely, infection, stasis, and gall-bladder activity."

They observed the development of two types of stone: one, the calcium carbonate stone which was found to form only within and not upon the surface of organic debris which had been retained for some time, and apparently undergone changes favoring carbonate deposit, and they question "whether the active inflammation found in association with human carbonate stones may not tend to their formation by providing in inorganic debris a chemical nidus for deposition, while so interfering with the ducts that this debris is not voided as it would be under more ordinary conditions, but retained to undergo changes preliminary to carbonate deposition." The second was the mixed type, especially those containing much bilirubinate which form about special centers of deposition. These centers were formed from the abnormal bile secreted after liver injury of various types, and were composed of calcium carbonate and calcium bilirubinate, together with an organic scaffolding. In human bile in the absence of infection, they have found similar nuclei composed of calcium carbonate which it is their impression are derived from the contents of abnormal gall-bladders and which undoubtedly act as centers of deposition.

Finally, they call attention to the fact that, although liver bile is quite definitely alkaline, gall-bladder bile in the dog, rabbit, and apparently in man, is less alkaline, neutral or acid in reaction. This change in reaction appears to be brought about by the activity of the wall of the gall-bladder and independent of its concentrating function. The importance of this finding lies in the fact that calcium

carbonate, cholesterol, and presumably bilirubinate, will precipitate from alkaline solutions, but not from acid. In other words, it seems probable that the development of the nuclei above noted and the growth of stones in the human gall-bladder may be dependent upon a failure of the gall-bladder, through one cause or another, to alter the reaction of its contents.

From this brief review, it is evident that much uncertainty exists regarding essential questions of etiological importance in the development and persistence of cholecystitis, but from it we may build up a working hypothesis to guide us in our therapeutic efforts. Thus, in cholecystitis we are dealing with an infection not only of the wall of the gall-bladder, but of the liver, the bile ducts, and the pancreas. The primary infection may have been an acute generalized infection, or a focal infection drained by the portal or systemic circulations. Infection once established may so alter the composition and reaction of the bile and the motility of the biliary system that conditions essential to stone formation are produced. Stones once formed, either secondary to infection, to metabolic disturbance, or to alterations in the reaction of the gall-bladder bile, favor the persistence of existing infection or the occurrence of secondary infection.

From this it follows that for the prevention of cholecystitis we must first seek and remove foci of infection at the earliest possible moment, rather than to await the development of complications.

Secondly, we must recognize the existence of periods of special danger such as occur during the later months of pregnancy; during and after the acute infections, especially typhoid; during and after inflammatory process of the large or small bowel. At these times we must try to overcome any tendency to biliary stasis; overconcentration of any of the bile constituents, especially cholesterol; any normal or toxic overstimulation of the liver by poorly balanced diets, overfeeding, irritating types of food and drink, and irregular bowel action, and finally by general hygienic measures, especially mental and physical rest, to as quickly as possible restore individual resistance.

Therapeutically, our indications are: 1. To recognize the inaugural symptoms of cholecystitis and to institute proper treatment before such extensive organic changes have occurred that the restoration of functional efficiency is rendered doubtful or impossible. 2. To prevent further infection of the hepato-biliary zone from primary areas of infection, either in the portal or systemic areas. 3. To prevent, as far as possible, the occurrence of liver injury by materials absorbed from the gastro-intestinal tract or elsewhere. 4. To prevent or correct metabolic disturbances which result in increased concentration of one or more of the bile components. 5. To eliminate the existing infection in the gall-bladder, liver and ducts. 6. To remove any mechanical irritation or obstruction in the biliary system. 7. And, finally, to build up the general body resistance.

How may these various objects be attained?

First, and of prime importance, is the crying need of earlier diagnosis. We must not allow our patients to go on for from five to twenty-five years with diagnoses of "nervous indigestion," "flatulence," "dyspepsia," "biliousness," "autointoxication," "neurasthenia," and a host of other such meaningless terms and with equally aimless and random treatment, while the pathological processes are slowly progressing to such a point that at length we are forced to a realization of the true condition. Only too frequently this realization awaits the onset of some dramatic and often tragic surgical complication or the development of marked degenerative changes in other organs. There seems to be a natural hesitancy on the part of the profession to diagnose cholecystitis until forced to do so, and yet when we recall the frequency of its occurrence this hesitancy is difficult to understand. As Deaver says: "Certainly, not less than one in ten adults are at some time the victims of infective hepatitis or cholangeitis and cholecystitis, which, for the most part, passes unrecognized as one of the forms of indigestion."

We cannot at this time go into the method of making an early diagnosis further than to state that a careful history is of prime importance and cannot be replaced by any other measure or group of measures. In a physical examination, the palpation of the gall-bladder region, with the patient in the sitting position in front of the examiner, with the palpating fingers of the right or both hands hooked under the right costal border, frequently discovers when the liver is depressed, both by position and by the inspiratory movement of the diaphragm, localized areas of tenderness not evident by the usual method of examination. The findings by the Lyons' test may be of value to the experienced worker, but as performed and interpreted by the average physician, nurse, or laboratory worker, are apt to be misleading. The recent proposal by Graham to render the gall-bladder radiographically dense by the intravenous injection of tetrabromphthalein may be of value in the exceptional case, but cannot be adopted routinely. Finally, we may suggest that, if the large group of cases now uncritically classed as "indigestion" of indefinite type were considered as cholecystitis until proven otherwise, fewer and less serious errors in diagnosis might be made.

Second. Accepting the diagnosis of cholecystitis, we wish to prevent, if possible, further infection of the hepato-biliary zone from any focus elsewhere in the body. To this end, teeth, tonsils, sinuses, lungs, genito-urinary tract, and intestinal tract must be carefully scrutinized and all the necessary measures instituted. Radicalism in this connection we feel is indicated.

Third. Recalling that the character of the bile is dependent upon the integrity of the liver cells and the composition of the portal blood, it is evident that we must endeavor to so regulate the gastro-intestinal function that the portal blood may be as free from toxic material as possible, and from overconcentration of any of the normal products of digestion. We have little actual knowledge of these processes, but it is clearly indicated to avoid poorly balanced diets and those with chemically mechanical or toxically irritating properties and to regulate bowel function by the diet if possible, or by proper laxatives if necessary.

Fourth. The correction of overconcentration of

one or more of the bile constituents is still to a very large extent beyond our power to control. In the case of cholesterol, however, there is evidence to show that, by decreasing the exogenous supply, we may decrease the amount in the blood serum and bile, and presumably thus decrease any existing tendency for it to precipitate out. The cholesterol containing foods are still not agreed upon, but the yolk of egg, cream, butter, and animal fats are most under suspicion and should, therefore, be restricted. The concentration of the bile salts and bile pigments may to some extent be controlled by overcoming any existing constipation, and thus preventing excessive absorption of these substances from the intestinal tract and their return to the liver. The question of dilution of the bile by abundant fluid intake rests on doubtful experimental ground, but is a thoroughly justifiable procedure. Recalling, however, the concentrating property of the gall-bladder, it is evident that prevention of biliary stasis is our most vital problem. If the influence of the acid reaction of the gall-bladder content in preventing precipitation of cholesterol, calcium carbonate and calcium bilirubinate is confirmed, it may eventually be possible to control this reaction by suitable drugs.

Fifth. The elimination of existing infection in the hepato-biliary system is the goal of all our efforts. We have little information regarding the frequency of spontaneous resolution of infections in this region, but, as has been said, it is undoubtedly true that infection here as elsewhere in the body, if not too severe or resistant is gradually overpowered by the forces of immunity. On the other hand, there is abundant evidence of the most remarkable persistence of many biliary infections with the resulting pathological changes in liver, gall-bladder, biliary passages, and pancreas. Probably the prime reason for the persistence of these infections is the intermittent and incomplete drainage of the biliary system, especially the gall-bladder, with the resulting "back pressure, stagnation and alternating distention and contraction, factors which in every hollow viscus are strongly hostile to the eradication of infection."

Reasoning from the general knowledge of the treatment of infection, four procedures suggest themselves: 1. Drainage. 2. Anti-bacterial drugs. 3. General and special measures to increase the resistance of the patient. 4. Extirpation of the diseased tissue.

Proper drainage with the relief of back pressure, stagnation and alternating distention and contraction will in suitable cases free the hepato-biliary system of infection, provided it can be maintained for a sufficient period of time.

Medically, our efforts to improve biliary drainage have until recently been most questionable, and consisted of: 1. The more frequent administration of food to call forth the normal stimuli. 2. Exercises. 3. The intake of large amounts of water. 4. The administration of so-called cholagogue drugs. There can be no objection to the use of the first three methods, but their effect on biliary drainage, especially in the presence of gross pathological changes, must be extremely slight.

As for the cholagogues, we now know that bile and bile acids are the only substances that decidedly increase bile secretion, although salicylic acid and olive oil have a less definite effect. However, it must be borne in mind that our object is not primarily to increase the secretion of bile, but to hasten its elimination from the biliary system. It is, therefore, possible that the drugs usually spoken of as cholagogues, such as aloes, rhubarb, the mercurials, padophylim, and nitro-hydrochloric acid act to decrease bile stasis by depressing the tone of the sphincter of Oddi. Another action of these substances which may be of value is the possible decreased concentration in the bile of the bile pigments and bile acids through their increased elimination in the stool. However, even combining the true and false cholagogues, the drainage of the biliary system is far from ideal, although at least temporary clinical improvement may follow their use.

The introduction of the Lyon-Meltzer method has given us a non-surgical method of draining the biliary system, which is a decided advance over our previous medical methods. This method consists of the introduction of a solution of magnesium sulphate directly into the duodenum, following which there is normally a return flow of bile, the first, or so-called "A" bile, being light yellow and coming from the ducts, the second, or "B" bile, being much darker and apparently coming largely from the gall-bladder, and the third, or "C" bile, being again light yellow and apparently coming directly from the liver. There has been much discussion regarding the relative merits and demerits of this method, but in properly selected cases there is no doubt that treatment is followed by decided clinical improvement which is associated with a corresponding improvement in the gross and microscopic appearance of the bile and, in some cases at least, an improvement in liver function, as evidenced by an improved phenoltetrachlorphthalein excretion. It must be admitted that this method, when applied two or three times a week, or even when the tube is continuously kept in place and the stimuli frequently applied, falls far short of complete drainage. On the other hand, it must be recognized that this method may be persisted in for relatively long periods, so that in cases uncomplicated by stones, adhesions or too extensive pathological changes, there may be a gradual return to more normal function and the eradication of existing infection. The objections to the method are that it is time-consuming, more or less disturbing to the patient, although very rarely to a decided degree, and that the results, especially in the advanced cases, are questionable. However, when results by the other methods of treatment are analyzed and it is recalled that this method carries no operative risk, it seems right to try it for a reasonable period in suitable cases before proceeding to more radical measures.

Surgically, biliary drainage has been obtained by various operative procedures, the majority of which connect the gall-bladder or ducts with the exterior of the body. In these operations drainage is maintained for from ten days to six weeks. This has been sufficient to eradicate the existing infection in a large percentage of the cases, but a return of symptoms has been so frequent that drainage operations have been largely superseded by cholecystectomies. Presumably, the failures have been due to too short a period of drainage in the presence of extensive tis-

sue infection or to a possible reinfection from some untreated focus.

Attempts to eliminate infection of the liver, gall-bladder and ducts by the use of anti-bactericidal drugs has as yet met with little success. Some have advocated the use of hexamethalamine, especially in association with the salicylates. However, as our present conception of the action of this drug is that it liberates formalin in an acid media, we should expect no effect upon infection in the tissues or the common duct bile, and only a questionable effect in the gall-bladder bile. Certainly, more convincing experimental evidence is necessary before accepting this measure.

The recent work of Young and his co-workers on the intravenous injection of mercurochrome and gentian violet opens up a promising field for investigation. They have apparently demonstrated striking anti-bactericidal effects for these drugs when injected intravenously in 5 mmg. per kilo doses. The mercurochrome was especially active in colon infections, the gentian violet in staphylococcus infections. We have demonstrated the presence of both these materials in considerable concentration in the bile in from 10 to 30 minutes following intravenous injection. It is thus evident that they are excreted by the liver, and it is not unreasonable to hope that they may favorably influence infections within the tissues, as well as in the bile. Experimental work is now in progress along these lines.

Much can be done by the use of general and special measures to aid in the reduction of existing infection in the hepato-biliary zone. First among these is mental and physical rest, combined with or followed by moderate exercise and heliotherapy. The use of autogenous vaccines prepared from the organisms recovered from the bile obtained by the Lyon method may be of value, provided such cultures do not represent mere mouth contaminations.

Finally, the reduction of infection by the surgical removal of infected tissue is a well-recognized and accepted method. However, as has been shown, in chronic cholecystitis we are not dealing exclusively with an infected gall-bladder, but with a diffuse infection involving the liver, ducts, gall-bladder, pancreas, and associated lymphatics. It is clearly impossible to remove all this infected tissue, and yet a partial removal without drainage of the remaining portion would hardly seem to meet the requirements. Yet this is what is apparently done when a cholecystectomy is performed, so that rather than being surprised that some cases are not cured after cholecystectomy, it would seem more logical to be surprised that any cases are cured. The facts of the situation seem to be about as follows: Infection once established in the hepato-biliary system persists because of poor drainage, the drainage of a diseased gall-bladder is by far less satisfactory than of the remaining parts of the system, and infection is, therefore, more persistent in the gall-bladder. Graham has shown that the gall-bladder can infect the liver as well as that the liver can infect the gall-bladder, and he believes that in chronic cases there is a vicious circle established. Thus, if under favorable conditions the liver has rid itself of existing infection, it may at a later time, under unfavorable conditions, be reinfected from the residual infection in the gall-bladder or the process may be reversed. By the removal of the gall-bladder, we remove the most susceptible portion of the biliary system and leave the remainder of the infected system to rid itself of its infection as best it can. Clinical results indicate that this occurs in a fairly large percentage of cases. Why? Apparently, because in these the drainage of the remainder of the biliary system is sufficient to allow the natural processes of immunity to overcome the infection.

The success of these natural processes of immunity in overcoming the infection depends upon the virulence and extent of the infection, the resistance of the patient, but especially upon the amount and character of tissue change. The more extensive the tissue damage, the more persistent the infection. As for the factor of drainage, ordinarily the surgeon leaves this entirely to nature. After cholecystectomies, there is a dilatation of the extra hepatic ducts because of the resistance offered by the sphincter of Oddi. However, as the ducts have no concentrating function, this dilatation is not sufficient to care for the bile secreted in the inter-digestive periods and eventually an insufficiency of the sphincter occurs. Possibly the completeness of clinical cure depends, to some extent at least, upon the completeness of the sphincter incompetence and the resulting free drainage of the biliary system. Other factors which may hinder complete recovery after cholecystectomies are the narrowing of the ducts by adhesions, with the resulting tendency to bile stasis and also the persistence of infection in a dilated stump of the cystic duct, from which reinfection of the entire system may occur.

Sixth. If biliary stasis is the result of mechanical obstruction, either by stones or adhesions, surgical treatment is clearly indicated. Also, as the presence of stones, even in the absence of obstruction, favors the persistence or recurrence of infection and constantly holds a threat of acute surgical complications, their removal should be advised.

Seventh. General measures to increase bodily resistance have already been discussed.

CONCLUSIONS

What, then, is to be our plan of treatment in the individual case? First it is, or should be evident that there is no rule of thumb to be followed routinely, and also that it is not primarily a question of medical treatment as opposed to surgical treatment. We have these various measures at our disposal, and our worth as physicians rests upon the care and judgment displayed in the choice of methods for the individual case. Many factors, sociological as well as clinical, have a bearing on this choice. As a general plan, the uncomplicated case of cholecystitis, after a complete diagnostic survey, should undergo a period of careful medical supervision, during which time focal infections are radically removed, gastro-intestinal function carefully regulated, diet supervised, rest, exercise and general hygiene insisted upon; drugs administered as indicated, where possible, non-surgical drainage of the biliary tract carried out and, in special cases, autogenous vaccines used. If, after a sufficient period, not of years, such measures have failed to remove the clinical and physical evidence of cholecystitis, or if after a period of

relief there is a recurrence of signs or symptoms, surgery, preferably cholecystectomy, should be advised, as it offers a greater likelihood of permanent relief and prevention of serious complications than is offered by further unaided medical treatment. However, following cholecystectomy, medical measures should again be instituted. On the other hand, cases of acute cholecystitis, or those complicated by recurring appendicitis, gall-stones, or extensive peritoneal adhesions call for surgical measures primarily, following which the above medical measures should be used.

350 Post Street.

DISCUSSION

W. C. Alvarez, M. D. (177 Post Street, San Francisco)—Dr. Boardman has given a very good résumé of what can be done for a patient with cholecystitis. As he says, there are many cases in which, for various reasons, we will not advise or urge operation, and the problem then arises: what are we going to do in a medical way? I am afraid that I am not quite so sanguin as is Boardman about the value of the various forms of medical treatment. Some of them are based upon theories which it seems to me are unsupported by any definite studies, and the occasional success which we have with them in practice does not teach us much because the disease when untreated varies so markedly in severity from time to time.

Hence it is that I would never bother to put a patient on a cholesterin poor diet; in the first place, because its efficacy has never been shown; second, because I cannot prove that the patient hasn't a gall-bladder full of stones already; third, because so far as we know the presence or absence of stones is largely immaterial: it is the inflammation throughout the biliary tract which is the essential thing; fourth, because in order for it to be of any value the patient would have to live on such a diet for years or for the rest of his days; and fifth, because I would have no faith in his sticking to it. It is only the occasional man or woman who has enough faith, interest and moral backbone to do such a thing year in and year out.

Similarly, I never prescribe cholagogues because I cannot see how they can influence favorably an inflammatory process in the wall of a gall-gladder which is not demonstrably affected in any way by them.

As regards the Lyon technic: It was based on a physiologic misconception, and it has since been so abundantly demonstrated that the procedure does not drain the gall-bladder that it is hard to see why we should go on using it for that purpose. It may be that temporary increases in the flow from the bile ducts will aid these ducts in throwing off infection, but even then, I would like to have a little proof of the greater efficacy of the tubal over the oral administration of the magnesium sulfate before I spend hours of my time and much of my patients' money with the tube. Theoretically, the oral administration ought to work just about as well, and, practically, I have seen just as brilliant results with it as anything reported by Lyon—if results they were.

Wade H. Walker, M. D. (Pacific Southwest Bank Building, Long Beach, California)—I am delighted to have read this most wonderful paper, covering as it does the ground so thoroughly that it leaves but little for anyone to add.

Boardman is quite right. The gall-bladder walls are first infected, as a rule, instead of the mucous membrane, as is so often said. The gall-bladder has a most important function; that is, normally it secretes a mucus which dilutes strong, irritating bile on its way through the common duct to the duodenum, where it comes in contact with stomach secretions, pancreatic secretions, and aids in digesting food and preventing fermentation in the alimentary canal.

There is one point in Boardman's paper that I would like to criticize in my most humble way—that is, not to consider the gall-bladder as a reservoir for bile; it is a small oval-shaped sac, attached to the under surface of the liver, having a serous coat, a muscular coat, and a mucous membrane lining. Normally, a gall-bladder will hold from one to one and one-half ounces; later on, after being infected, this same gall-bladder might be distended until it will hold a half-pint or more. For instance, in empyema of the gall-bladder I have seen them increase to the size of an ear of corn. In these particular cases the gall-bladder is diseased and has undergone pathological changes. Back to my starting point. A normal gall-bladder, with capacity of one to one and one-half ounces is not tankage space enough to accommodate all of the bile that is secreted normally by the liver. To the contrary, it will accommodate a very small per cent of the total output of bile at any one time, and what I mean to imply by this is, probably 1 per cent of the bile secreted by the normal liver is backed back by pressure and enters the gall-bladder for future use; there it comes in direct contact with the gall-bladder secretions, namely, mucus, is diluted, and later is emptied out through the cystic duct, into the common duct from which it came.

I remember quite well hearing Charles Mayo give a talk on infected gall-bladders, and what I have said in the preceding paragraphs bears out my experience in gall-bladder surgery, as well as what Mayo had to say in his discussion. He said that a great many surgeons objected to removing gall-bladders because it was a valuable organ when in a normal condition. On the other hand, after it became infected with la grippe germs, malaria or streptococcus infections, colon bacilli infections, etc., which destroys the mucous membrane that lines the gall-bladder or forms gall-stones, there is but little hope for a cure of such gall-bladders by a cholecystostomy.

A cholecystectomy was a little more dangerous to the patient at the time of the operation, but was well worth the cure effected in all the cases if operated in time, whereas those that were drained or had a cholecystostomy, 50 per cent of them had to be operated the second time.

We all know A. J. Oschner's opinion about draining gall-bladders versus removing gall-bladders. He says the gall-bladder is a very valuable organ and should be saved if possible, notwithstanding that a good many had to be operated the second time.

I have given you other men's opinion of the treatment of infected gall-bladder—the Mayo clinic and Oschner clinic—but that is not what you gentlemen want to hear. You want my opinion. Inasmuch as I am discussing this paper. I have a better right than most of the doctors have to discuss gall-bladder infections. I have operated quite a few, draining some, removing some, relieving some entirely; others had recurrent attacks, had to be treated medicinally, or have gall-bladders removed later. In December, 1913, I had my gall-bladder drained for a la grippe infection; had my appendix removed at same sitting. For seven months I had pleurisy, gall-bladder colic, indigestion, pancreatitis, and everything else a man could have pertaining to a gall-bladder infection; suffered the tortures of the damned and was unable to do a day's work in all that time. In July, 1914, I had my gall-bladder removed, on my feet in six days, all O. K. in nine days, went to work in September, and been well ever since.

I think the average surgeon should be conservative in his work, and should remove gall-bladders instead of draining them, because it takes a man of wide experience and with plenty of facilities to cure an infected gall-bladder by the drainage method. You hear some reputable physicians say they can cure gall-bladder infections by washing out the duodenum with the duodenal syphon. I believe that this is next to impossible.

Urotropin given internally in large doses is a panacea for thick and infected bile. It also will cause drainage tube tract to close more readily as an after treatment in cholecystostomy.

L. G. Visscher, M. D. (Westlake Professional Building, Los Angeles)—It is a pleasure to listen to a paper so completely covering the subject discussed in comprehensive sentences, stating definite indications.

May I be permitted to make a paradoxical statement of possible value? If drainage of the biliary system be the object, does it appear that a one-time drainage, as produced by an ordinary cholecystotomy for removal of stones, is insufficient. The usual time of drainage is from five to ten days, evidently fully inadequate to reach the proposed goal, and, aside from the removal of the stones, not productive of lasting benefit. Methods of cholecystotomy characterized by large gall-bladder incisions, or even by par-

tial removal of the gall-bladder, seem to be, in the light of this observation, of possible value.

If, however, the gall-bladder be removed, has it been demonstrated repeatedly, by those who have sufficient experience with the Lyon method, that over a period of from three to six months, no bile can be secured. This observation may be explained by the assumption:

First. That no storage facilities are left soon after the removal of the gall-bladder, these facilities, however, not only as to storage, but also as to bile inspissation, becoming established some months after the cholecystectomy in the form of dilatation of hepatic ducts and the formation of histological elements in the wall of these ducts, securing this inspissation.

Second. By the profound interference with the innervation controlling the relaxation and contraction of Oddi's muscle, leaving the muscle relaxed, the result being that the bile in continuous flow leaves the biliary system, whereby a prolonged continuous drainage of the bile passages is secured.

It gives me particular satisfaction, as an internist who loves to argue with surgeons, of recommending, in cases where thorough drainage is desired, the more radical operation of complete removal of the gall-bladder.

Charles D. Lockwood, M. D. (295 Markham Place, Pasadena, California)—This splendid paper is one of the sanest and most complete discussions of cholecystitis that I have ever heard. Every conscientious surgeon who has had a large experience with gall-bladder surgery has gone through an evolutionary process in his attitude toward the treatment of gall-bladder infections. In our early experience with gall-bladder surgery we rarely removed the gall-bladder, and I think most of the older surgeons will agree with me that our results were very satisfactory.

In looking back over my own work of the past twenty years, comprising about 100 operative cases for gall-bladder disease, I am sure that over 80 per cent of these cases were permanently cured by cholecystotomy. A recent review of some 300 cholecystotomies by Dr. Cullen of Baltimore reveals about the same number of satisfactory results. In view of these excellent results before the days of frequent cholecystectomies, and considering that these results were obtained in the most advanced and unselected cases, I feel that we should not commit ourselves to cholecystectomy in every case. There are cases of advanced liver and pancreatic infection in which I believe that gall-bladder drainage is still the operation of choice, even though it may be necessary later to do a cholecystectomy.

I think we are all agreed as to the advisability of cholecystectomy in hydrops, old thickened and shrunken gall-bladders, gangrenous gall-bladders, and certain cases of empyema of the gall-bladder, but I am sure there is still a place for conservative surgery in this field, and it requires the highest surgical skill and judgment to properly select these cases.

Doctor Boardman (closing)—In closing, I wish to express my appreciation of the kind comments of the previous speakers. However, I am a bit disappointed in Dr. Alvarez' remarks, but still feel justified in recommending in suitable cases, low cholesterin diets, bile salts, or the Lyon treatment.

As regards Dr. Walker's question of the storage function of the gall-bladder, I believe the recent work of Rous and MacMaster will thoroughly answer this.

Finally, let me again plead for an earlier recognition of chronic cholecystitis, followed by a period of systematic and sane medical treatment which, if unsuccessful, should be followed within a reasonable period by surgery.

"I have had three personal ideals: One to do the day's work well and not to bother about tomorrow; the second to act the Golden Rule as far as in me lay towards my professional brethren and towards the patients committed to my care; . . . and the third to cultivate a measure of equanimity as would enable me to bear success with humility, the affection of my friends without pride, and be ready when the day of sorrow and grief came to meet it with courage befitting a man."—Osler.

THE PROSTATIC MEDIAN BAR, COMPLICATIONS AND TREATMENT*

By Miley B. Wesson, M. D., *San Francisco*

The obstructive symptoms of a small median bar and a large benign hypertrophy are the same.

When properly restricted to carefully studied, well-chosen cases, Young's punch operation is very radical and permanently curative.

A median bar once removed does not recur.

There will be no hemorrhages if (1) the operation is properly performed; (2) the patient is kept quiet; (3) water is forced, and (4) drainage is maintained.

Ten successful consecutive Young's punch operations are analyzed from the standpoint of untoward symptoms, their cause and management.

INTRODUCTION

ALL doctors, irrespective of their medical specialties, are interested in the subject of prostatism. Is it because they are all prospective operative subjects? Thirty per cent of all individuals past middle life have prostatic obstructions, though only 15 per cent seek relief from their symptoms. One-half of the obstructions consist of prostatic hypertrophy, benign or malignant, and the remaining 50 per cent are median bars. Drugs may temporarily relieve the symptoms, but eventually the services of a surgeon are required. In this special field the general surgeon is at a disadvantage. He can do a suprapubic prostatectomy as well as a trained urologist, but if the result is not good he can neither tell the reason why nor remedy the defect. Many surgeons have done cystotomies on patients, suffering with all the symptoms of prostatic obstruction, and instead of seeing an enlarged prostate gland have found a tight orifice and a small "fibrous prostate" which could not be enucleated, but had to be "cut out in pieces," with the result that the surgeon had a most trying experience, and the patient generally succumbed. It is here that the technically trained specialist possessing an extensive armamentarium of instruments and a high degree of mechanical skill in using them, acquired only by a prolonged and large clinical experience, is needed.

In preparing this paper a thorough review of the literature of the prostatic median bar was made, in order to ascertain why the punch operation that has proven so uniformly satisfactory in Hugh H. Young's hands during the past fifteen years has not come into universal use. A series of ten successful consecutive punch operations is analyzed from the standpoint of unusual symptoms and their management. Those cases that are ordinarily dismissed with the statement that "the patient recovered after a stormy convalescence" are here given especial attention. All the possible reasons for failure of the operation and the methods of avoiding disaster are elucidated.

HISTORY

The first description of the median bar and its treatment is found in the lectures delivered in 1830 by G. J. Guthrie (Fig. 1) before the Royal College of Surgeons in London. However, in 1850 Mercier,

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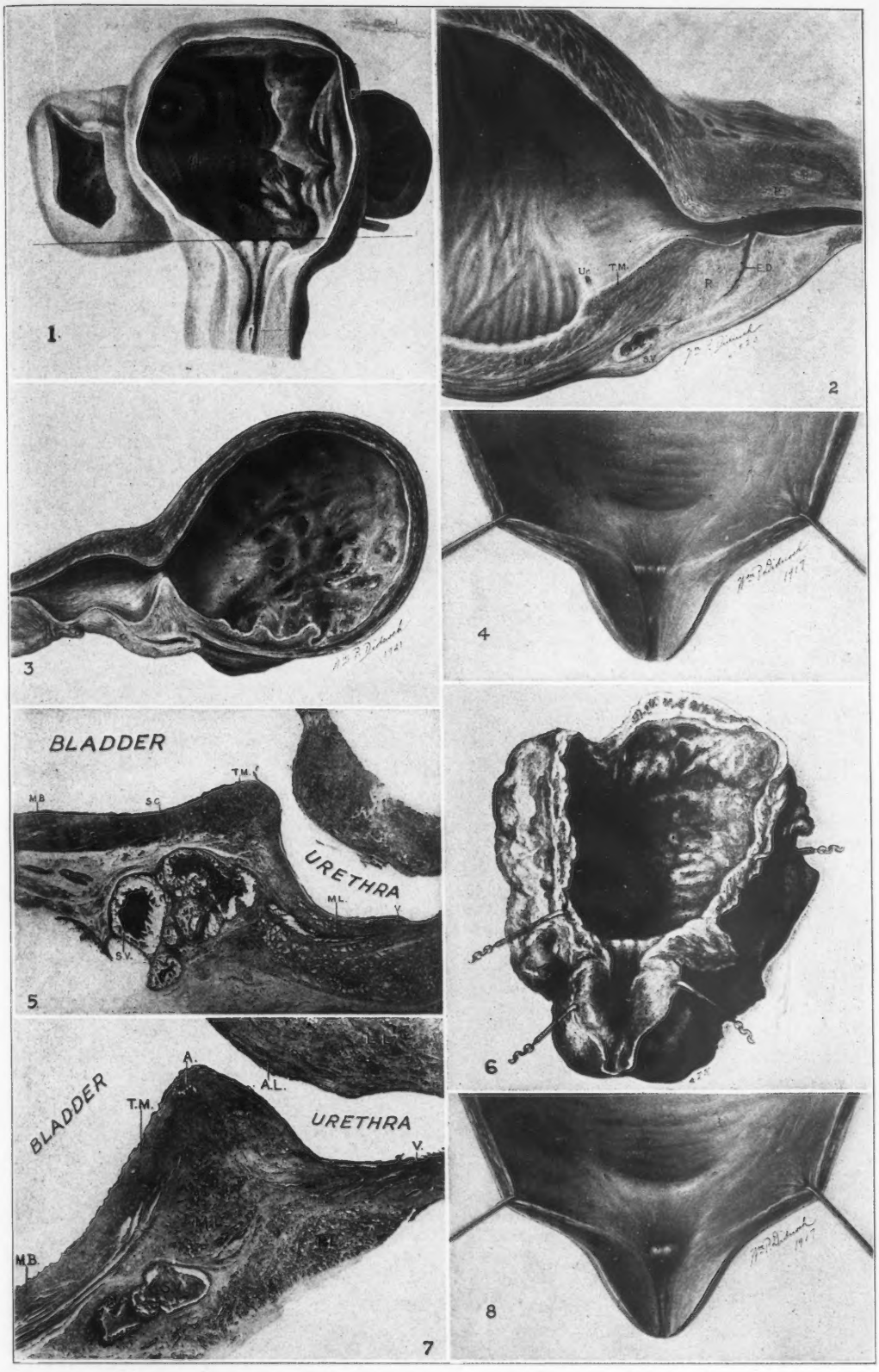
*Read at the Twenty-first Annual Meeting of the Nevada State Medical Association, Bowers Mansion, Nevada, September 13, 1924.



1. The first median bar reported: "The examination after death showed nothing peculiar save the five pouches and the bar at the neck of the bladder formed by its elastic but now rigid substance, totally unconnected with the third or middle lobe of the prostate." (Guthrie.)

2. Normal vesical orifice—sagittal section of bladder and prostate.

3. Median bar with beginning undermining of hypertrophied trigon; marked trabeculation of bladder wall, and cellule formation.

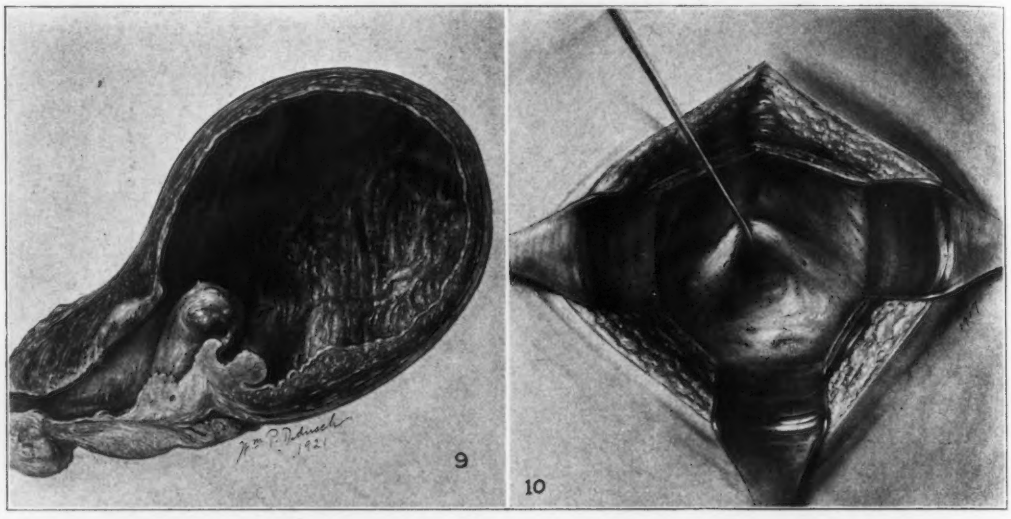
4. Median bar, type I. (Young and Cecil.)

5. Microscopic sagittal section of fibrous median bar, type I.

6. Median bar encroaching on vesical trigon and causing shortening and transverse creasing, type II. (Randall.)

7. Median bar in which glandular elements predominate over sclerosis—microscopic section, type III.

8. Isolated hypertrophy of subcervical gland, type IV. (Young.)



9. Large Albarran's lobe, commonly confused with middle lobe of prostate.

10. As the result of back pressure from a median bar there occurred a hypertrophied trigon, which functioned as a dam causing incomplete retention. Splitting the trigon did not effect a cure, and neither did several punch operations, since part of the original obstruction at the vesical orifice persisted; however, a very thorough punch operation with many cuts resulted in apparently a permanent absence of residual urine. (Young and Wesson.)

who was a voluminous writer and very aggressive, was awarded a prize of 1500 francs by the French Academie of Sciences for the discovery of the median bar, and to this day is given the credit by all textbooks, the name of the real discoverer never being mentioned. Guthrie's descriptions are accurate, yet he was robbed of the credit due him, because of his gentle retiring nature and dislike of publicity. This latter trait, as well as his two operative procedures, is well illustrated by the following extracts from his book published in 1834: "The object is to divide the bar, dam, or stricture, with as little injury as possible to any of the neighboring parts. When these are sound, as far as can be ascertained, I recommend its being done by an instrument which Messrs. Everill and Mason, of St. James' street, have made at my suggestion, being an improvement on the central perforator or lancet of Mr. Stafford, which renders it capable of cutting on the side, and of being easily cleaned. Messrs. Everill and Mason wished to call it my instrument; but as I never claimed more in any instrument than the suggestion, leaving the mechanism entirely to the artist, I have begged them to take to themselves any or all the merit which may be due to it or them." His perforator or punch would not cut the dense fibrous bars, so he advised "in the very advanced stages of the disease, when the bar is fully formed, a small perineal incision should be made on a grooved director and the bar cut with a probe-pointed, strong, but narrow knife." Sixty-seven years later Fuller redescribed this method of cutting the bar, while Chetwood changed it slightly by using an electrocautery blade —a modified Bottini operation.

ETIOLOGY

Median bars are of two general types: (1) Congenital, and (2) acquired. Young found that the histories indicated that 5.6 per cent of his cases were congenital. In the first group are included the cases, described by Englisch, of the congenital absence of the prostate, the hypoplasia of the gland first manifesting itself at puberty with obstructive symptoms. The majority of the cases occur secondarily to some inflammatory reaction. Ciechanonski believed that there was a deposit of fibroplastic material (connective tissue) which, if beneath the mucosa of the entire bladder, caused a permanently contracted bladder, below the bladder neck caused a contraction of the orifice, or in the prostate resulted in a small fibrous prostate; while Belfield looked upon the perivesicular infections as the source of the fibroid indurations of the base and neck of the bladder. The German schools teach that atrophy of the prostate occur from various causes, and that, because of propinquity, a sclerotic bar forms at the region of the bladder sphincter. However, it is generally agreed that the median bars are secondary to infections of the seminal vesicles and prostate.

Camaro of Milan, Italy, advanced a clever theory to explain the unaccountable cases; he thinks the sources of obstructions are prostatic adenomata so minute as not to be detected by the cystoscope, but only to be felt by the finger. Fowler has described small intraurethral projecting prostatic lobes which can be diagnosed only with a cystourethroscope. The theory of retention, due to atony of the bladder as taught by Guyon and Albarran, has long been discredited.

PATHOLOGY

A median bar (Figs. 2, 3) is an obstruction involving the posterior vesical lip, unassociated with changes of an obstructive character elsewhere in the prostate, bladder, or posterior urethra.

Great confusion of nomenclature has resulted from the introduction of clinical descriptions by surgeons. Randall, by his painstaking study has clarified the field and given us an accurate classification. He described four distinct types: (1) A narrow bar

(Fig. 4) made up of firm, dense sclerotic tissue, forming an abrupt angle with the lateral walls of the vesical outlet (Fig. 5); (2) a fibrous bar encroaching on the trigon rather than on the urethra with a shortening of the trigon, due to transverse creasing (Fig. 6); (3) a glandular bar with the hypertropic process confined to the gland acini of the posterior prostatic commissure inside of the prostatic capsule and under the sphincteric muscle which raises the posterior vesical lip into a broad obstructing bar, unassociated with visible hypertrophic changes in the lateral lobes. It is a prostatic hypertrophy associated with inflammatory sclerosis (Fig. 7); and (4) isolated hypertrophy of a subcervical gland (Fig 8), commonly called an Albarran's lobe (Fig. 9).

SYMPTOMS

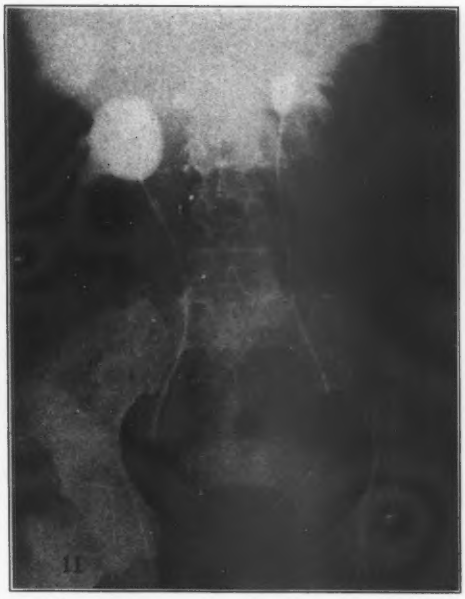
The general symptoms are those of urinary obstruction and are the same as of hypertrophy of the prostate. If the urinary retention is not relieved there is failing health, with drowsiness, headache, gastro-intestinal disturbances and, eventually, nocturnal thirst.

Hugh H. Young, in a personal communication, states that an analysis of his 355 cases showed that in the punch cases pain was as prominent a symptom as was retention in the cases of hypertrophy. The symptoms for which he performed the punch operation were in their order of frequency as follows: (1) Frequency of urination, 82 per cent; (2) pain, 53 per cent; (3) difficulty, 50 per cent; (4) small stream, 42 per cent; (5) weak force, 40 per cent; (6) urgency, 25 per cent; (7) occasional complete retention, 11 per cent; (8) incontinence, 8 per cent; (9) sudden stoppage, 8 per cent; (10) complete retention, 7 per cent; (11) urination incomplete, 5 per cent. The painful symptoms are distinctly more frequent, more annoying and distressing than in prostate hypertrophy; not infrequently they overshadow everything else and the patient seeks relief on account of the irritation. The location of the pain was: (1) Urethral, 21 per cent; (2) bladder-neck, 18 per cent; (3) end of penis, 15 per cent; (4) perineum, 14 per cent; (5) suprapubic, 12 per cent. Sexual symptoms were practically negligible and occurred for the most part in patients past middle life.

There is no relation between the size of the obstruction and the amount of retention. The function tests show kidney impairment to be as great as in cases of prostatic hypertrophy, hence they must receive the same careful preliminary treatment as do prostatectomy cases. The worst complications (Figs. 10 and 11) are often secondary to small bars that have been overlooked.

DIAGNOSIS

Median bars must be differentiated from hypertrophy of the prostate, organic stricture of the urethra, papilloma, and spinal cord lesions. The history is of importance, and as a rule those cases above 55 years of age are suffering from hypertrophy, while the younger ones have bars. In Young's series one patient was 7, twenty were under 30, and five were over 80 years of age. Hematuria is common in benign prostatic hypertrophy and rare in median bars. In bars the prostate is of normal size and consistency on rectal palpation. Sounds of large size often pass with ease, although a uniformly contracted, tight orifice may resist the passage of a very small one. When viewed through a suprapubic opening the vesical orifice may appear normal, but when an attempt is made to dilate it with a finger-tip there is found a tight thickened ring which offers a firm resistance. Since the introduction of the Wassermann reaction, spinal cord lesions have become of minor consideration. However, with the cystoscope, cases of tabes have been diagnosed where the serological test was negative.



11. Hydronephrosis (bilateral) secondary to a median bar.

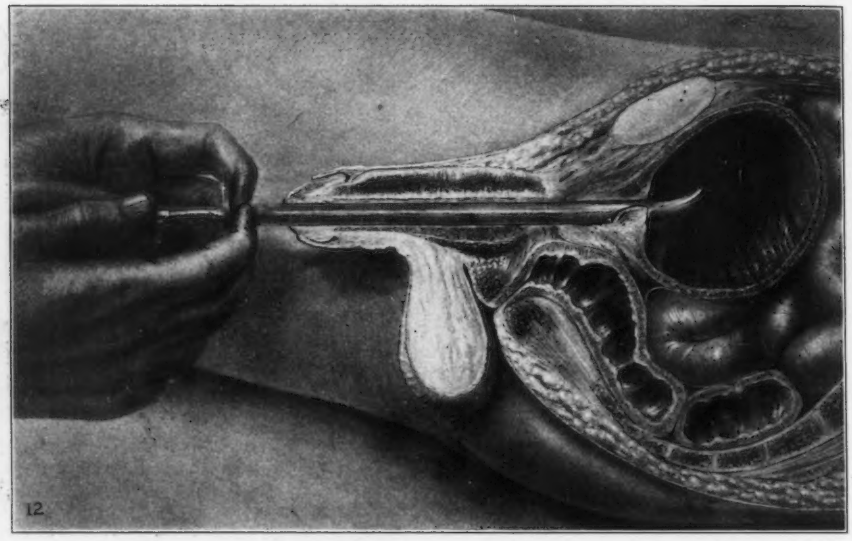
The diagnosis of a median bar is made upon four positive findings: (1) Residual urine; (2) trabeculation of the bladder wall; (3) slight lateral clefts, and (4), with the finger in the rectum and the cystoscope in the urethra, there is a distinct "jump" as the beak of the instrument, which is being gradually withdrawn, passes over the vesical lip.

OPERATION

Only four types of operation should be considered: (1) Young's punch; (2) cautery punch; (3) sphincterotomy, and (4) fulguration. The perineal and suprapubic procedures are unnecessarily mutilating and dangerous.

The punch method is, in principal, that described by Guthrie in 1830, but it remained for Young to perfect the instrument, define the group of patients suffering from obstruction at the vesical neck, to which the punch is applicable, and describe the method (Figs. 12-19) and results to be expected in types of cases. In 1909 he did his first punch operation, and the method, with very few changes, has become standardized. When properly performed upon selected cases, beautiful and brilliant results can be obtained.

The cautery punch devised by Young in 1911 and



12. Young's punch in operation. The outer tube has been withdrawn far enough to entrap the median bar in the fenestra, as indicated by a checking in the flow of the fluid. The hands of the operator are shown ready to push the inner tube home. (Young.)

popularized by Caulk in 1920, consists of a slow-burning, heavy knife in an irideo-platinum sheath. Hemorrhage is stopped by the heat, so that no catheter is required for the drainage, and the operation can be done in the office. Caulk has had no local or systemic reactions, although others have not been so fortunate.

"Sphincterotomy per urethram" was described by the late J. T. Geraghty in 1922, as a simple office procedure which was rarely followed by even blood-stained urine. The instrument is a modified Young's punch, the circular knife being replaced by a wedge-shaped concave blade, so that a single cut is made through the bar instead of removing a section. This is the method used by Guthrie, who, in describing his operation, said: "The knife being projected just as the instrument is felt to be passing the bar, will cut it; and if, after it has just passed into the bladder, it will be withdrawn, the little knife, in coming back, will enlarge the original cut. If the bar be thin or narrow, I have no doubt of the possibility of dividing it in this way without doing mischief; and in two cases in which I tried it, I have reason to believe the object was effected." I have not used the sphincterotome, but a personal communication from E. W. Beach (Sacramento) states that in a series of seven cases he found it very satisfactory and efficacious. In three cases he used no retention catheter, but in the remaining four cases it was necessary—one hemorrhage being so severe as to necessitate two blood transfusions.

Bugbee, in 1911, reported nine cases treated with the Oudin current one-quarter inch spark, direct contact, burning until the hydrogen bubbles ceased to form. Three to six treatments were required to cut the bar, and there was no bleeding and no retention.

Fulguration with the D'Arsonval current has been successfully used. However, the burns are deep and secondary hemorrhages tend to occur several weeks after the patients are cured and have returned home.

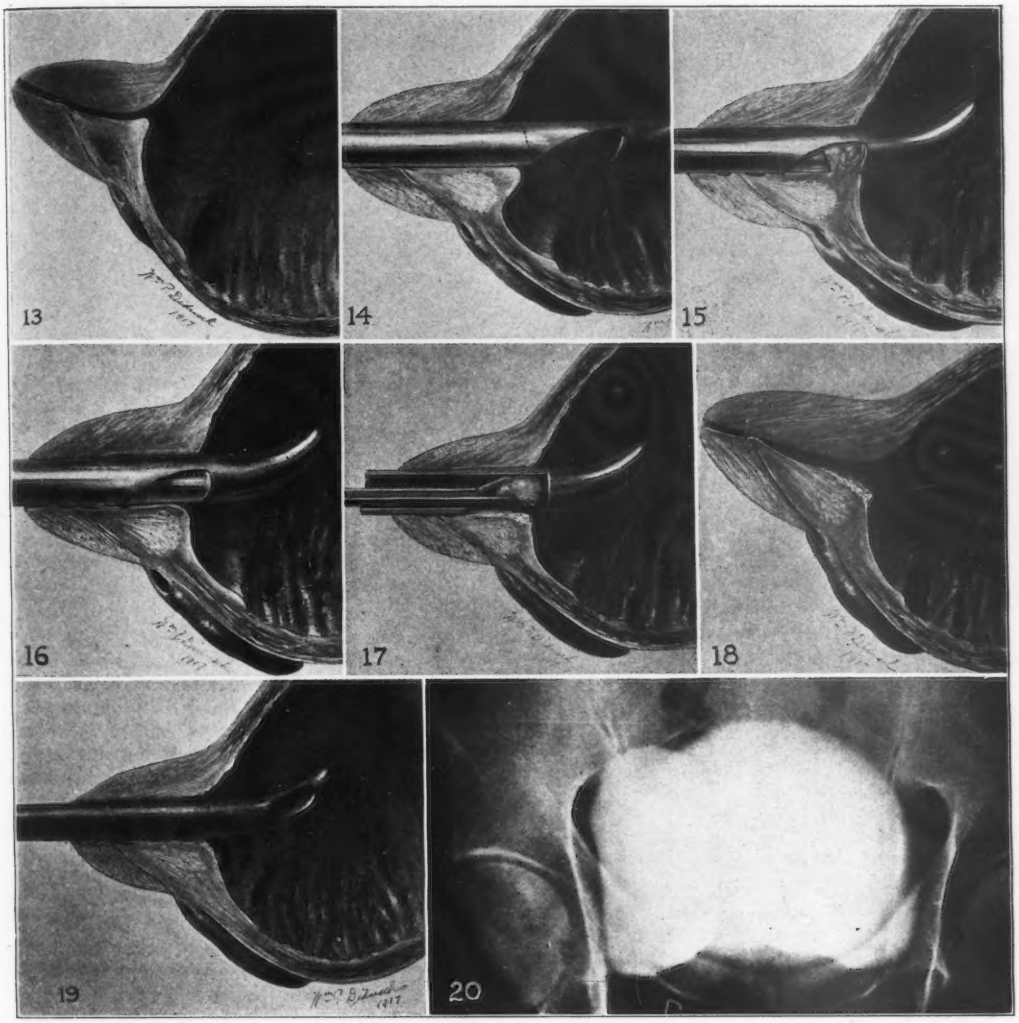
UNUSUAL SYMPTOMS AND COMPLICATIONS

A series of ten consecutive punch operations is analyzed from the standpoint of untoward symptoms, their cause and management. The operations were performed upon private patients ranging in age from 40 to 75, the average age being fifty-eight and one-half years. Although a history of gonorrheal infection was not elicited from each one, an examination of the prostatic and seminal vesicle secretion showed clumps of pus in every case.

The only anesthetic was an urethral injection of 4 per cent novocain, and in all of the cases the operation was painless. It was a routine procedure to have the coagulation time of the blood determined before operation, and to give a hemoplastic preparation in the operating room. In view of the recent report of the Council on Pharmacy and Chemistry of the American Medical Association, warning against the indiscriminate use of such preparations because of the danger of fatal anaphylaxis, this step will have to be guarded in the future. A hypodermoclysis of 3000 cc. of saline was given each patient upon the return to his room from the surgery, and a minimum fluid intake by mouth of 5000 cc. was maintained throughout his hospital stay.

Caffeine sodium benzoate, grains III (hypo), as a routine emergency order (to be given by the nurse) demonstrated its value in one case. The pulse rate of a patient with ventricular extra-systoles dropped to less than 40, and was barely perceptible shortly after his return from the operating-room, and, as sometimes happens, just as all the doctors had gotten out of call; a half-hour later when I saw him he was in perfect condition.

Four of the cases had large vesical diverticula. In two cases these were not removed, as the general condition of the patients did not warrant the risk,



13. Longitudinal section showing a typical median bar elevated above the trigon without enlargement of the prostate. (Young and Cecil.)

14. The punch instrument has been introduced well into the bladder and the inner tube drawn upward, thus opening the fenestra through which urine begins to escape. The median bar is seen depressed by the shaft of the instrument. (Young.)

15. The cutting inner tube is excising the median bar. (Young.)

16. The cut is completed and the section is in the tube. (Young.)

17. Sectional view showing the removal of the excised mass of prostatic tissue with the urethroscopic clamp. (Young.)

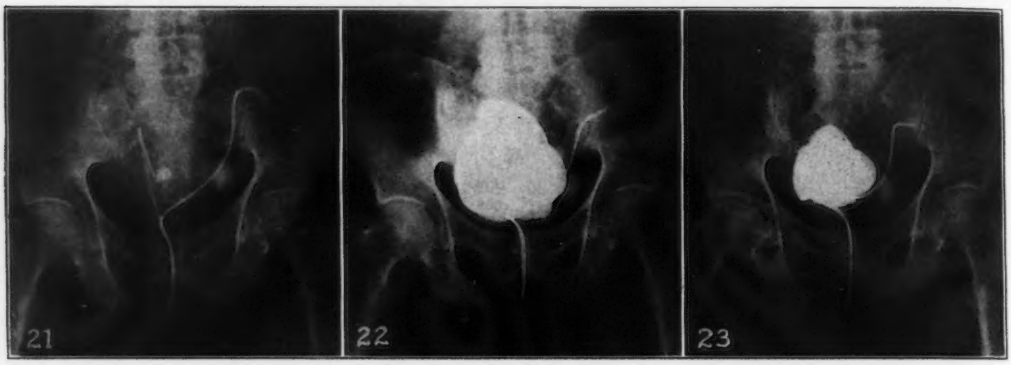
18. The completed operation. (Young.)

19. Drainage of bladder with a large catheter, 30 F coude, after removal of the prostatic bar or contracture. (Young.)

20. Cystogram showing two large diverticula, secondary to a median bar.

but in the other two, diverticulectomies were done. Young's suction method was successfully used in one case (Fig. 20), but failed in the other, as the pouch was attached deep in the perineum. In this case there was a complete retention, the residual urine being 1000 cc. The stones present (Fig. 21) were removed by means of a sponge stick; a retrovesical dissection was made and the sac (Figs. 22, 23) freed, except at its apex, invaginated and removed. The open punch operation, supplemented by an incision with a scalpel, was performed in both of these cases.

The number of cuts made in the routine operation varied from three to twelve; the first was made posteriorly (great care being taken not to catch the hypertrophied interureteric ridge) and the punches ceased when the vesical orifice was fully dilated, as shown by the failure of the punch to engage. After three cuts, great care must be used, for, if the sheath is not firmly engaged, there is danger of it slipping just as the punch is sent home, and the cut will be made in the urethra. Swinburne reports the punch slipping into the pendulous urethra and hanging by a bent tooth, so that he had to do an external urethrotomy to remove it. Clipping off the verumontanum is not an uncommon procedure, and is undoubtedly responsible for the disturbances of sexual function which sometimes follow this operation. The

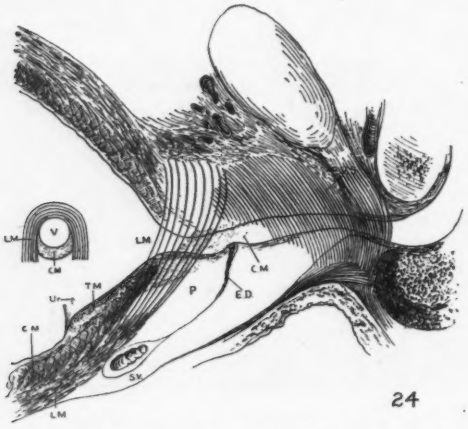


21. Median bar causing complete retention and a large diverticula. A catheter in the left ureter is apparently in contact with a calcified lymph gland; the second catheter points to the stones in the bottom of the diverticulum.

22. A cystogram that conceals the diverticulum, but exposes the calcified lymph gland.

23. A diverticulogram made by filling the bladder with air after the patient had voided.

specimen removed generally consists of fibrous tissue, smooth muscle fibers, and gland acini; but if the anterior bite is sufficiently deep it may get striated muscle (Fig. 24).



24. Schematic view of the muscle of the bladder orifice, showing how deep a cut would have to be made in order to include striated muscle fibers, E. V. S.

Just as important as the mechanical excision of the bar by the punch is the placing of the catheter. The tendency is to use too small a catheter and, unless specifically ordered, the dealers supply those with only one eye, and if this happens to lie against the trigon there will be no drainage. A 30 F. Coude catheter with two eyes should be used. If it is properly located and firmly fixed all hemorrhage will stop within a few hours. In this series, clear urine was passing in all cases in from two to twenty-four hours.

There was one secondary hemorrhage, because of a dull punch, the inadvertent use of too small a catheter (29 F.) and with a single eye, and some poor adhesive plaster that did not hold the catheter in position. The patient's urine was clear at the end of twenty-four hours, but because I had used a poorly sharpened punch which tore off a large piece of mucosa I thought best to leave the catheter an additional twenty-four hours. During the night the catheter ceased to drain, due either to the single eye rotating against the trigon, or slipping into the prostatic urethra. A poorly trained orderly advised the patient to stand by the side of the bed and strain, which he did, and eventually he succeeded in starting a stream, but it was blood and not urine. When I saw him he announced that he was going to die, and confessed that he had come to the hospital expecting that result. The catheter was removed and a metal clot-aspirator substituted, but the oozing continued. Although his red blood count was 4,340,000, a blood transfusion was done because of his mental condition rather than his physical; two days later this was repeated. At the end of five days the urine was clear and the "clot sucker" was removed. He then developed a toxic delirium of a religious type, and became so violent that he had to be restrained. The patient had been trained as a priest, but became an agnostic; his attack was precipitated by the actions of his religious male nurse trying to reconvert him, and was ended three days later, when a priest, who was called after midnight, upbraided him for his "thoughtlessness in disturbing a Father's rest," and returning after daybreak continued the scolding. This brought back his old hatred for the Church, and at 8 a. m. he was mentally normal. He left the hospital fourteen days after operation, having gained twenty-two and one-half pounds. I might say in passing that I never knowingly operate upon a patient who thinks he is predestined to die from the operation.

Many of the commercial punches should not be used, as they do not fit snugly and tend to tear the tissue rather than cut. I use one given me by Dr. Young and made by his mechanic from non-rustable steel. It is routinely sharpened by an expert immediately before use. This instrument broke while in use in one case just as it became firmly engaged; in cutting through a very fibrous bar, considerable force was used and the flange became unsoldered from the sheath. With the aid of a pair of Lane bone-forceps and some strips of adhesive plaster, the shaft was held and the operation successfully concluded.

The urethral spheroids described by Fowler, I found in a man of 54 who also had a bar. The bar was removed, 60 cc. of residual urine disappeared, and a toxic man became active and alert.

Following the removal of the catheter, after the urine has become clear, there is no difficulty in voiding for several days; then there may be sufficient edema of the vesical neck to require catheterization. Great care must be used or a secondary hemorrhage will be started. A No. 18 silver catheter with a short beak is ideal. One of my patients developed a retention at night, and a new intern used a No. 12 silver catheter with a long curve, which penetrated the urethral mucosa and resulted in a suburethral infiltration. Atypical symptoms of pneumonia followed, and it required considerable search to find the cause of the rise in temperature and chills.

The patients cannot be dismissed as cured when they leave the hospital. The bar is gone, but not the symptoms. They require the passage of sounds, instillations, hydraulic bladder distensions, etc. The posterior urethritis and cystitis does not disappear along with the bar, and the patient wants relief from his symptoms. However, treatments should be postponed for six or eight weeks. Incontinence is an unknown complication.

SUMMARY

Guthrie noted that the punch operation was of little value in cases of benign hypertrophy, since the groove through the hypertrophy allows the adenoma to swell up into the opening. However, it has proven of great value in many cancer cases. Cases of retention, due to a complication of a median bar and a spinal lesion, may be cured by this method.

The punch operation, as perfected by Young, is not a palliative procedure, but is a radical operation, and when properly performed upon suitable cases is 100 per cent efficient. It is exceedingly technical, requiring a very painstaking preliminary study and close attention to details during and after the operation. It should never be performed in a hospital where there is not a careful enthusiastic resident and an efficient orderly.

Each case is a separate problem, and if watched closely, so as to anticipate complications, the patient will make a rapid and uneventful recovery and with a brilliant result. In the hands of a careless staff I can conceive of no operation with so many elements of potential danger. I have never seen a case of hemorrhage where I thought cystotomy was indicated, and Young states that he personally has never done a secondary suprapubic operation upon a punch case for hemorrhage.

In Young's series of 355 punch operations seven cases died in the hospital some time after the operation, but only one death was directly due to the procedure (a cut trigon). Even if all the deaths are counted, the mortality is less than 2 per cent. "One may, therefore, say that when we consider the age of many of these patients and the serious complications which were often present, the punch operation is indeed a very benign procedure."

CONCLUSIONS

1. The median bar and its treatment were first described by Guthrie in 1830.

2. The obstructive symptoms of a small median bar and a large benign hypertrophy are the same.

3. The disturbances of micturition in a man under 55 years of age are generally due to a median bar, while in older men they are probably due to hypertrophy.

4. When properly restricted to carefully studied, well-chosen cases, Young's punch operation is very radical and permanently curative.

5. A median bar once removed does not recur.

6. There will be no hemorrhages if (1) the operation is properly performed; (2) the patient is kept quiet; (3) water is forced, and (4) drainage is maintained.

7. The three common causes of hemorrhage are: (1) the tearing of the mucous membrane by a dull knife; (2) the use of a catheter with one eye, which results in straining because it is not properly placed to maintain drainage; (3) a catheter so small as not to fit snugly against the cut surface and thereby hasten clotting.

8. A slow blood coagulation time is a positive contra-indication for a punch operation.

9. In all cases of persistent hemorrhage or shock, transfusion is indicated before a cystotomy should be considered.

10. The cystoscopic diagnostic signs are: (1) Residual urine; (2) trabeculated bladder; (3) lateral clefts; (4) the "jump" felt by the finger in the rectum pressed against the slowly withdrawn cystoscope in the urethra as the beak passes over the vesical lip.

11. Ten successful consecutive Young's punch operations are analyzed from the standpoint of untoward symptoms, their cause and management.

12. The punch is a dangerous instrument in careless, incompetent hands.

N. B.—I desire to express my appreciation to Dr. Hugh H. Young and William P. Didusch for the use of their original drawings.

1275 Flood Building.

Making Our Remedies Safer—The American Pharmaceutical Manufacturers' Association recently adopted a "Declaration of Belief," which sounds a new and encouraging note: "We believe," says the Association, "that it is the unquestioned obligation of each and every pharmaceutical manufacturer: (a) To manufacture preparations only under proper conditions and of established value, pure and accurate in composition, and true upon, and to, their label; (b) to label, advertise, and merchandise such preparations only in a manner wholly free from misrepresentation of any kind, in complete accord with both the spirit and terms of the applicable laws, and in entire harmony with the highest standard of commercial morality and ethics."

"The trouble," believes the New York Medical Times, "is that the big cities are full of people who were intended in the phylogenetic nature of things to work in a simple way upon a small area of the earth's surface without any undue strain upon the brain or nervous system. Our industrial and profit-seeking civilization takes these peasants, schools them under painful pressure (for them), and then subjects them to a vocational grind that takes them nowhere, without even a pension at the end of the senseless gamut."

DEVELOPMENT AND RE-ESTABLISHMENT OF BREAST MILK BY USE OF DR. ABT'S ELECTRIC BREAST PUMP

A PRELIMINARY REPORT *

By EARL M. TARR, M. D., *Los Angeles*

Indications for and results obtained by the use of the pump both in developing and re-establishing breast milk.

The importance of emptying the breast as a sure method of prolonging the milk supply is strongly emphasized.

Several illustrations.

Healthy discussion by A. J. Scott Jr., Los Angeles; Angus B. Cowan, Fresno; Clain F. Gelston, San Francisco; Robert G. Sharp, San Diego.

MY THEORY that the new-born infant is practically never able to completely empty a full breast and that a breast will function in direct proportion to the amount of stimulation which it receives, is reasonable and will eventually be accepted as a fact. When this point is definitely settled and its significance fully appreciated, more consideration will be given the mechanism of nursing and more infants will be given breast milk over a much longer period than at the present time.

Development of breast milk should begin THE DAY THE BABY IS BORN. There can be no question regarding the logic of this statement, and yet very few of us actually begin our real work until there is a definite shortage of food. To presume that the infant is going to be able to furnish enough stimulation to start a breast going properly and keep it functioning satisfactorily for seven or eight months simply means that *weaning* will automatically take place long before it should. It seems advisable, therefore, to study the infant at breast, and if he is unable to completely empty the breast at each nursing, then added stimulation may well be considered.

The late Dr. Sedgwick did more, perhaps, than any other one man to stimulate us to thought and action regarding the best means of developing and maintaining breast milk. Dr. Abt has always taught that thorough emptying of the breast at each nursing is absolutely necessary if we hope to keep the organ functioning adequately throughout the normal period of lactation. I believe that I am one of the first to specifically state that practically no new-born infant is PHYSICALLY able, during the first few weeks of life, to empty a breast, and that added stimulation should be given the breast *as soon as the baby is born.*

"Expression," as advocated and taught by Sedgwick, has been productive of amazing results, and thousands of infants have been saved because proper and sufficient food was made possible for them. Ulysses Moore, in his work in France and Belgium, and Portland Oregon, clearly demonstrated that development and re-establishment of breast milk was the most practical way to supply safe food for the starving infants under his observation. In private and clinic practice in this country, he insists that "all healthy mothers can keep their breast milk indefinitely if the breasts are properly stimulated."

The electric breast pump which Dr. Abt has perfected will not, in my opinion, discourage the practice of hand expression. Indeed it will serve to lay the foundation and pave the way so that expression will be more generally practiced. This pump is a mechanical contrivance, electrically driven, and operates on the same principle as the milking machine used in the dairy. This electric pump will be found far more useful in the maternity division of the hospital than elsewhere, and I feel reasonably sure that it should be used there rather than sold to the mother for home use. Hand expression can be done by the mother after she leaves her lying-in bed, and will be found altogether satisfactory. Time will not permit detailed description of the pump. During the past year I have used it extensively and have studied results impartially. I must thank the obstetricians for their excellent co-operation without which even a preliminary report at this time would be impossible.

ADVANTAGES OF THE ELECTRIC BREAST PUMP

1. The pump is safe and easy to operate, and a breast may be emptied in three or four minutes.

2. One pump will do the work of six nurses.

3. Improper technique on the part of inexperienced nurses who practically never "express" properly will be largely overcome.

4. Engorged breasts, in which the nipple is short and difficult of manipulation, can be relieved or emptied quickly and without pain. The relief to the mother is immediate and complete.

5. Premature infants will be assured of their intended food, if the pump is used on the mother until her milk supply is fully established.

6. When used on the mothers in a maternity ward, an abundance of breast milk will always be on hand for delicate or premature infants.

7. The use of the pump will relieve mothers of the tedious, tiresome, and often painful method of hand expression which is still practiced in some hospitals by the sick mother at the request of her physician.

8. Breast stimulation can be started as soon as the baby is born, and once the mother realizes that her babe cannot give sufficient stimulation, she will readily see the logic of expression and will be eager to practice it after returning home.

9. Fissured nipples heal promptly when the pump is used and the infant kept from the breast for a short time.

IMPORTANCE OF PROPER MILKING TECHNIQUE

It is to be remembered that mothers are entitled to all the consideration we can give them, and their mental, as well as physical, comfort should be carefully planned. You will find, when you first use the pump, that in some patients curiosity, timidity, and actual fear will be encountered, and these conditions must be carefully eliminated.

Some of the important points in connection with successful use of the pump are as follows:

1. Assure the mother that the pump will not hurt when applied to her breast.

2. Allow her to experience the sensation of suc-

* From the Department of Research the Anita M. Baldwin Hospital for Babies.

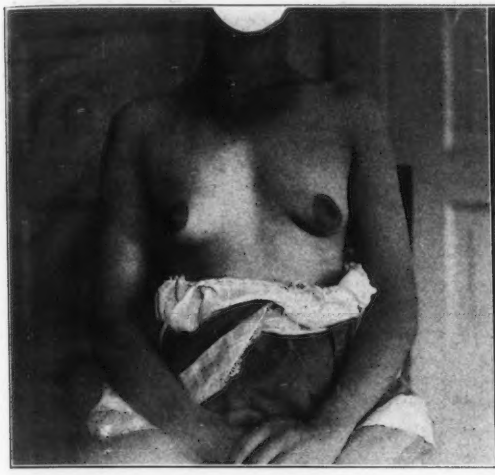


Figure I.—Re-establishment. Dry breasts for nine weeks. Dr. Abt's electric breast pump used forty times before results were assured.

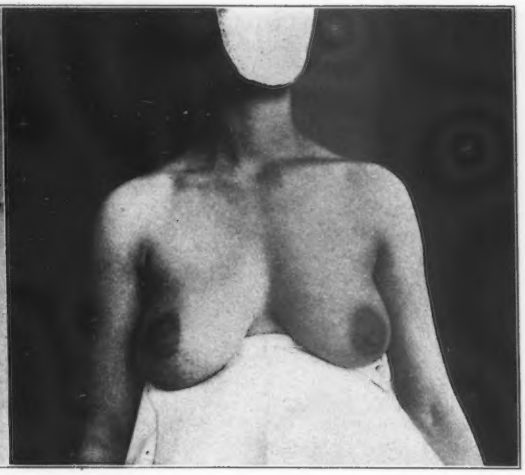


Figure II.—Same case one month later, at which time breasts were producing 20 ounces daily. Pump used 209 times.

tion by holding the shield over the palm of her hand. This will give her an exact idea of just how it will feel to the breast.

3. Always start with the suction at zero and very gradually increase. This is necessary to "draw out" the nipple and when slowly and painlessly done will avoid frightening the mother. As she becomes accustomed to the sensation, the vacuum may be increased.

4. Careful selection of a proper shield, or glass nipple, is essential. Long nipples require a larger shield than short nipples, and it is necessary to apply the shield to the nipple in such a way that the openings in the nipple do not come up against the sides of the glass shield. This would, of course, shut off the free flow of milk and would give discouraging results.

5. Forbid demonstrations on a patient until she is thoroughly familiar with the pump.

6. The container which is to receive the milk as it escapes through the rubber valve must be large enough at the mouth to allow the valve to empty freely. A clean medicine glass or a clean glass tumbler is satisfactory. The ordinary small-necked nursing bottle is the container we use.

DEVELOPMENT CASES—GROUP 1. SIXTY-TWO CASES

Sixty-two studies make up this group. Of this number, there were forty-eight spontaneous deliveries, one breech, one version, eight low forceps, and two Caesarian sections. The birth weights ranged from 5 pounds 3 ounces to 10 pounds 9 ounces, and the number of males happened to be exactly the same as the females. All of these babies left the hospital weighing more than their birth weight. (This is due, in part, to the fact that none of them were allowed to experience the usual "physiologic loss" for more than sixty hours). They were all given a 15 per cent carbohydrate solution until the milk flow was well established, were nursed at three and four-hour intervals, and were also given the milk obtained by pumping. No nursing period was for longer than twenty minutes and, when possible, we kept them at the breast not more than ten minutes.

Among the mothers were four who had never been able to nurse previous children. In spite of their belief that it was utterly useless to attempt to develop milk, they all became excellent producers and went home with more milk than the infants could use. Three of the mothers gave a history of breast abscesses at previous times, and the breasts had been given up as worthless. All of these mothers developed quite all the milk they needed.

Thirty-six mothers were primiparae, and twenty-six were multiparae. Owing to the fact that they were the patients of several doctors, it was impossible to handle all of them the same. The pump was used not less than five times daily nor more than seven times, and it was used regularly from the *day of delivery to the last day in the hospital.*

COMMENT

The results were uniformly good. All breasts responded well, but some were slower than others. No sore breasts or breast abscesses developed. Primiparae, in this group, did a little better than multiparae, and I lay this principally to the fact that these women are often in a better physical state than women who have borne several children. This is by no means a rule, but simply an observation. Practically all of these patients have been under observation during the past six months. Clinic cases have been more difficult to follow than private cases, but those who have reported regularly have done better than we had expected. So near as we can learn from the data obtained, about 90 per cent of these babies have had breast milk throughout their first six months. We hope to follow these cases for another three or four months, and then draw our final conclusions.

RE-ESTABLISHMENT CASES—GROUP 2. SIXTEEN CASES

Naturally, the re-establishment of breast milk is far more difficult than the comparatively simple task

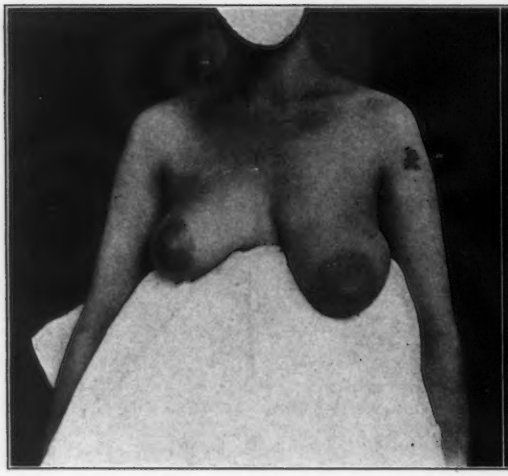


Figure III.—Development. Right breast nursed by infant. Left breast pumped with Dr. Abt's electric breast pump. Infant one month old.

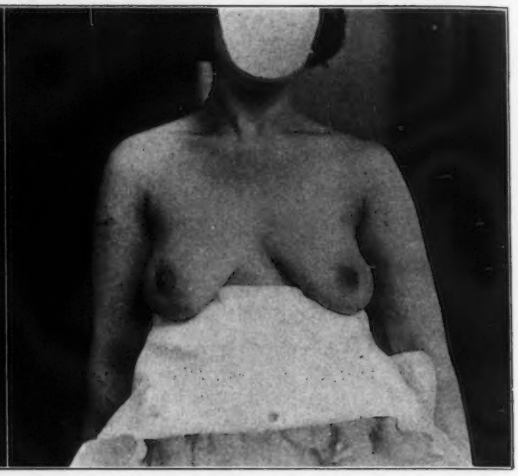


Figure IV.—Appearance of breasts of primiparae after pump used two weeks to develop milk. First picture about like Figure I. Pump applied eighty times.

of its primary development. Most of the mothers in this group had been dry, or practically so, from two to nine weeks, and the electric pump was used, not because I consider it greatly superior to hand expression, but because it would do the work much quicker. These women are all difficult psychological problems and require careful management. The chief difficulty is that most of them refuse to believe that the dry breast can be made to resume function and this, of course, must be definitely settled in their minds before any results can be expected. Detailed directions regarding their daily mode of life and what is expected of them must be outlined and explained with considerable minutia. They are taught how to use the pump and are asked to report each twenty-four hours.

The shortest time necessary to re-establish milk in this group was nine days. This woman had been dry for five weeks. The pump was used six times in each twenty-four hours, and on the second day she got a few drops. This encouraged her, and the belief on her part that she was going to be successful was the best galactagog imaginable. She went right up to 16 ounces in the first week, and a week later was producing 22 ounces daily.

The longest time required to re-establish milk was thirty-eight days. This woman had been dry for ten weeks, but she worked the pump faithfully and on the sixth day was rewarded with a few drops of watery fluid. She had applied the pump just forty times during the week. Her production then became regular but very slow up to the twenty-eighth day, when she obtained 12 ounces in six pumpings. On the thirty-eighth day she got 21 ounces and kept this amount during the next four months.

SUMMARY

This is a preliminary report of my experience with Dr. Abt's electric breast pump in developing and re-establishing breast milk. At present I am encouraged and rather enthusiastic, and believe that the pump will prove exceedingly valuable in the maternity hospital. Certainly, it is worthy of trial because it does no injury to a breast and, in my experience, has helped develop and re-establish milk easier and more promptly than hand expression.

2007 Wilshire Boulevard.

DISCUSSION

A. J. Scott, M. D. (1501 South Grand Avenue, Los Angeles)—Doctor Tarr has presented his subject well. It takes an enthusiast to take a subject as this, and make it interesting and a stimulus to others to try. Doctor Abt has offered in this electric pump an easy as well as a simple method of milk expression. It would not be practical to use it in the home unless it could be rented from the physician, on account of the initial expense. It is a suitable piece of apparatus to use in any and all hospitals, but it must be used correctly to get results, and intelligently so as not to do damage, as is possible in the hands of an unskilled person. One nurse should have charge of the technique, and should do all the training of the nurses who use the machine. It is surprising what can be done in re-establishing or stimulating milk-flow. This machine convinces mothers, as well as doctors, that the new-born does not empty the breasts at feeding time.

It is not necessary to comment on the fact of the necessity of emptying the breasts to keep up the necessary milk supply. For the premature this machine is a great boon, for it does give him the so essential breast milk, and at the same time, the psychic effect on the mother is good.

We need among our obstetricians, as well as general men, more persistent and insistent teaching of mothers of the necessity of breast-feeding.

I have seen the result of this machine and have been well pleased, but my personal use of it has been very limited. The manual expression is used by me constantly, and I have had very good results.

Angus B. Cowan, M. D. (Fresno, Calif.)—The normal mammalian breast within certain definite limits will respond to the demands made upon it. The maximum output of milk is attained when the demand made upon the breast is greatest. A breast with an output of less than its maximum capacity may have the output increased when the demand is augmented. A breast with a capacity for larger output will automatically regulate the output to meet a diminished demand. An increased demand in itself will not cause an increased output in a breast functionally inefficient through other factors. Many such breasts exist.

The above seem to be established facts long known in the field of animal industry. Doctor Tarr's experiments give further proof of the wisdom of completely emptying the breast so that the maximum supply may be obtained. The contention that supplemental expression be adopted

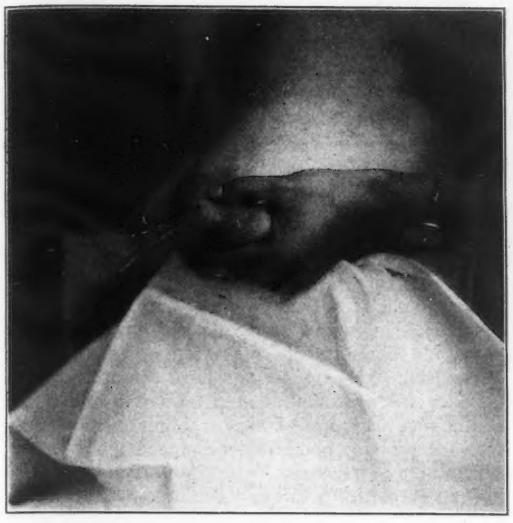


Figure V.—Expressing milk from breast. With the thumb at upper margin of areola above and tip of index finger at areola below, a "together" movement is made which forces milk out of the ampoulae. Please notice that thumb and finger are properly placed and do not "hug" the nipple.

in all cases where the breast, after nursing has not been completely emptied, need not be conceded. Given a healthy vigorous infant and a breast that will functionally operate, it is held that sufficient stimulus to provoke a satisfactory output will be provided as the child grows older and his food demands become greater. This is well proven in Doctor Tarr's re-establishment cases. In the case of premature or delicate infants, where efforts at nursing are feeble, or in the case of mothers who give a previous history of having been unable to nurse their young, the point is well taken and such procedure held advisable.

The contention that supplemental expression should begin immediately after the birth of the baby needs additional proof before being attempted routinely. During the time of engorgement, when the breasts are swollen and painful, it would seem that utmost gentleness should be used, and further experiments are needed to prove whether it is better to begin stimulation at this time or await the period when the normal flow begins.

CLAIN F. GELSTON, M. D. (380 Post Street, San Francisco)—The great value of observations such as are presented by Doctor Tarr rests in the fact that a practical and easy method of stimulating the flow of breast milk is offered. The difficulties encountered in manual expression, in spite of the years of work of Sedgwick and his coworkers, have prevented a really conscientious effort on the part of physicians throughout the country to apply his teachings.

Proof is certainly no longer needed that it is essential that a breast be emptied for preservation of an appreciable flow of milk. The simple method, as devised by Doctor Abt, is a great step in popularizing a maneuver having the greatest of influence on preventive pediatrics.

ROBERT G. SHARP, M. D. (1000 Watts Building, San Diego, Calif.)—As a boy on a farm, I am sure that I earned more beatings for not "stripping" the family "Bossy" than for any other sin of omission. My father literally pounded this principle into me: "In order to maintain a good milk supply it is necessary to completely empty the udder at each and every milking." While in France with Sedgwick, he used to slap me on the shoulder and say: "Sharp, don't ever make the mistake of trying to stuff your mothers in order to make more milk. It only makes them fat and disgusted. Strip the breasts after each nursing, and you stimulate an increased milk supply." Again a principle was being pounded into me.

Now comes Abt with his electric breast pump and offers the method de luxe for breast stripping. Dr. Tarr has clearly and forcefully set forth the uses and advantages of this breast pump. His contention that the premature and the new-born are practically never able to empty a full breast is undoubtedly correct. To these two types may also be added the weaklings and the lazy of whatever age. That we all recognize these facts and that we all agree with Tarr, is probably true. Is it not just as true that all of us are not at all times as diligent as we should be in our efforts to develop and maintain, and especially to re-establish an adequate supply of breast milk for the infant who cannot or will not develop his own? It is so often a useless struggle to induce the mother to strip her breasts after the infant has nursed, and so much easier to put the babe on a complemental formula which he likes, takes well, and upon which he commences an immediate gain, that we are too often prone to follow the path of least resistance. Along this line I wish to point out a real danger which we sometimes overlook, viz., too sweet a mixture. The best plan is to determine the sugar percentage in the mother's milk and then to keep the formula sweetness below this. The carbohydrate percentage may be added in a non-sweet form such as cream of wheat, cream of rice, rice flour or farina. For just as surely as the infant finds that he can get his milk sweeter or with less effort from the bottle, so will he follow the path of less resistance. He then becomes a lazy nurser.

Two very small points I would like to add to Tarr's excellent paper. First, that Dr. Abt's electric breast pump might well be placed in every pediatrician's office. Hardly a day passes but what some baby's milk supply should be analyzed. It goes without saying that the full breast should be completely emptied in the doctor's office by or under the supervision of a competent nurse. Second, that the pediatrician almost never gets the infant until the shortage of breast milk is apparent. Further in this connection, I would like to suggest that the time will undoubtedly come when the obstetrican will say to his patient, "I want you to decide upon the doctor that you are going to have for your baby, so that when baby arrives you can call him immediately." Then will we be able to stimulate breast-milk production to the best advantage.

DOCTOR TARR (closing)—This most excellent discussion of the subject convinces me that the vital matter of maternal nursing is not being completely left to the mother. It has been our experience that nursing mothers actually require most careful supervision. You cannot simply tell them to go home "and nurse their baby." The electric breast pump which Abt has given to us enables the attending physician to educate the mother, while she is still in her lying-in bed, along the proper lines of milk development. The warning sounded by Dr. Sharp is most timely and should be remembered whenever a formula is prepared for a nursing infant. Each day we listen to mothers who complain that since the baby was given a bottle, in addition to the breast, the breast has been slighted. I might add that the early giving of broth and well-seasoned soup stock to the nursing infant sometimes creates a disgust for food so bland as breast milk.

I wish to make my position absolutely clear regarding the matter of "expression." This procedure should never be relegated in favor of the pump Dr. Abt has devised or any other mechanical contrivance. The pump has now been modified in several respects, and hand-driven pumps are being made which sell for much less than the electrical pump. The rental plan may eventually be worked out, but the fact remains that each mother can take her two hands with her at all times, and when she has mastered the simple technique of "expression" she will have little need for a pump of any description. In the office of the pediatrician and in the maternity department of the hospital, the pump, in my opinion, can be used to best advantage. To insist that a mother, three or four days post-partem, should spend her energy in "expression after each nursing" does not appear logical to me. If a pump is not at hand, and if the services of a nurse are not to be had, the matter may safely be left until the mother is able to sit up comfortably.

Dr. Cowan is correct in his statement regarding my contention that breasts should be given added stimulation as soon as the baby is born. So far as I am aware, this

bold statement of mine has not appeared elsewhere, but my observations for the past several years and considerable experimental work have led me to the conclusion that the time to begin preparing the first meal for the baby is the day the mother becomes pregnant. We all encounter mothers to whom the act of nursing is decidedly repulsive. They cannot bear to have anything touch their nipples, and had their peculiar condition been studied and corrected during pregnancy, there would have been less to regret after the baby came. *There is but one way to insure the speedy solution of the infant-feeding problem. The family doctor delivers and directs the feeding of 85 per cent of all babies born. Let us detail him with a sane and practical plea that he teach all of his mothers the art of "expression" and when he has learned to talk breast milk to all of his mothers from the time they come for their first examination until the baby has a few teeth, then and only then may we hope, as pediatricians, to have time for a more careful study of some of the other preventive measures which must naturally occupy most of our attention. The family doctor should deliver babies and he should direct their feeding, but he should pay decidedly more attention to the matter of teaching preventive medicine to mothers than to the modification of cow's milk.* The electric breast pump can be used by him to wonderful advantage, and he will soon learn that breasts that are always emptied after a feeding will continue to function for a much longer time than those left quite to themselves. Dr. Scott has followed our work very carefully, and his conclusions agree with ours. The main thing is to *empty the breast.* In some instances the pump can scarcely be dispensed with, but "hand expression," routinely practiced, should be our constant teaching.

LENGTHENING THE QUADRICEPS TENDON FOR STIFF KNEE

By George J. McChesney, M. D., *San Francisco*

An operation entailing no risk to important structures, which presents no especial difficulties and will give a flexion range sufficient for all practical purposes in life, and which gets rid of an ugly tiring limp and a position of the limb which is always awkward and in the way, as in sitting in a street-car.

The operation requires three weeks in bed, after which the patient can be up and about on crutches, and would permit a return to light work within three months.

Pertinent discussion by Harold D. Barnard, Los Angeles; George Rothganger, Oakland; Leonard W. Ely, San Francisco.

THIS procedure, described first in the Journal of Orthopedic Surgery by Bennett in September, 1919, with two cases, and again in April, 1922, with six cases, has filled a long-felt want, particularly in industrial surgery. It does not seem to be as well known and popular as it should be, however, and hence, with an experience of five cases, I have ventured to come before you to plead its more frequent employment.

To briefly review the anatomy involved, we find the rectus femoris superficially and the crureus deeply in the midline, merging with the internal and external vasti, as they all come down to the patella. They unite so intimately in the lower third of the thigh, that pathological adhesions of one muscle cause restriction of motion in all, and that even, with adhesions in the upper third of the thigh, as occurred in two of my patients. The crureus is especially important, as it is in intimate contact with the bone in all its course. The question of the capsule naturally arises. My experience coincides with Bennett's. It can be disregarded, even the superior pouch. In all my patients there were soft, rustling tearings of capsular adhesions, as the joint flexed only after sufficient work was done upon the tendon. In no case was there an effusion or pain in the joint afterwards, and the capsular adhesions did not re-form. As Bennett says, the knee-joint adhesions are entirely comparable to the ankle-joint adhesions following a long-standing equinus deformity due to calf muscle contractures. The real pathology is then above the joint. Again, anatomically speaking, there are no important nerves or vessels in the operation area.

We are all acquainted with the stiff knees following fractured femurs, with sepsis, either operative or due to the initial trauma, and with the joint uninvolved. Knees will resist motion, however, when sepsis has been absent, but when operative procedures have caused adhesions of the muscle to the bone, or when prolonged immobilization and disuse of the quadriceps have caused a simple resistant contracture without operation, quite analogous to the calf muscle contractures causing a foot-drop deformity. In the latter condition, achillotomy, or, better, a lengthening operation is done as a routine, and the same should be done to the quadriceps and completely supplant the blind and dangerous attempt to manipulate the knee in an attempt to regain motion. We have then three general pathologic conditions, causing stiff knee.

First. Adhesions of muscle to bone, following sepsis, usually an osteomyelitis, mild or severe, complicating fracture.

Second. Adhesions of muscle to bone or to muscle, following operation, but with no sepsis.

Third. Resistant contracture of the quadriceps with no adhesions, due to prolonged immobilization, as for joint disease.

THE OPERATION

A long median incision is made from the patella up the thigh to the middle third. The lateral margins of the rectus and the capsule of the joint are exposed. The rectus and the crureus beneath are separated from the vasti by deep, lateral incisions connected above. The whole is dissected free from the femur, and remains attached to the patella only, like a tongue. If with moderate force the knee then does not flex, it means that the vasti are still holding and the lateral incisions must be deepened. Bennett does not emphasize this point, but I have found it very important. In my worst cases the vasti were cut laterally a staggering amount before the joint flexed with the rustling tear of intracapsular adhesions. When the joint flexes, the tongue of rectus and crureus is sutured with kangaroo, silk, or chromic gut (I prefer the latter) to the adjacent vasti, and the usual closure of the superficial tissues is made. When much lateral cutting of the vasti has been done, there are rather marked depressions or sulci, which will give rise to dead spaces unless pressure padding is made with the dressing to obliterate them.

The knee is put up in plaster, in a position of 90 or 100 degrees flexion for three weeks, after which the anterior half is cut away and gentle passive motion is made for a week, with splint replaced at night. In the fifth week active motion is begun, and increased in amount as time elapses. The cast should be worn at night for eight weeks altogether.

It takes an indefinite time for complete extension to be regained. Bennett says a year for severe cases. I find the personal equation a marked factor, and with energetic stretching exercises, three to four months should be ample to regain power of extension to within 10 degrees of normal, actively, and completely normal, passively.

Recently one of the two first cases done by Bennett five years ago and reported by him in his original article, was examined at a meeting of the Industrial Section of the San Francisco County Medical Society. We found still lack of complete active extension by 10 degrees, but full passive extension and no disability. The man was scarcely conscious of the limitation and had practically perfect use of the limb.

Weight can be borne in five to six weeks, at first with crutches, but they should be discarded at about the eighth week.

My first case is the most interesting of the series, in that it was done for stiffness following old tuberculosis of the knee. The disease began in 1908, was treated conservatively by Doctor Harry Sherman and myself with plaster-splinting from 1910 to 1914. Weight-bearing was permitted in 1916, and in 1921 he presented himself with a painless joint permitting full extension and a flexion of 55 degrees. The patella was freely movable, the condyles not normally rounded, but there was no bony block to flexion, attempt at which caused pain in region of the patellar ligament. The boy was a machinist and was willing to undergo the operation and take the risk, in order to obtain better knee action. There had been no active disease for ten years, so the risk of lighting up the disease seemed fairly slight.

At operation in July, 1921, the quadriceps was lengthened, and flexion to 120 degrees then obtained with rupture of capsular adhesions, using only moderate force. Much greater force before lengthening the tendon accomplished nothing.

Subsequently, the course was uneventful. There was no flare-up, but, from fear of this, active motion was resumed very cautiously. He resumed work as a machinist six months after operation, and was seen three months later, when he had 90 to 95 degrees of flexion, and lacked 20 degrees of full extension. Two and a half years later I found the same range of flexion and 15 degrees restriction of full active extension. He had been working full time as a machinist at the Union Iron Works for two years.

This case is comparable to Bennett's seventh case, which was done for stiff knee following a septic arthritis. His case also had no flare-up. He lays down the opinion that the operation is permissible if all active joint disease has disappeared.

Case No. 2—B. T., aged 58, was my most unfavorable patient in age, condition of limb, and final result. A fracture of the upper third of the right femur received in September, 1920, was plated. Plate and splint were removed in six weeks. Naturally, angulation occurred. Was re-operated in March, 1921, for the angulation, and wore plaster and Thomas splints for five months thereafter. I saw him in April, 1922, when he had an active flexion power of 30 degrees, and full extension. Union in the fracture was solid, with marked outward angulation and a shortening of six inches. A month's physiotherapy and active bending exercises gained only a few degrees, and as he desired more flexion in his trade of plumber, operation was accepted, and done in July, 1922. Following the operation, there was considerable oozing, a trouble Bennett had in several of his cases; the healing was delayed, and with it active motion, as a result of which, when last seen by me in November, 1922, he had only 45 degrees of flexion or a gain of only 15 degrees. The mediocre result here was partly due to his lack of co-operation and disobeying orders, when active motion could have been practiced.

Case No. 3—D. C., aged 30. Left knee stiff after compound fracture middle third of femur, followed by several sequestrectomies and plaster splints for eight months. This happened three years before I operated in October, 1922, at which time he had a few degrees of motion, and a recent sinus in the fracture area following the exfoliation of a crumb of bone.

At operation, much of the vasti had to be cut away and there resulted a slight gape in the lower end of the incision, but healing was otherwise uneventful, motion regained, and a follow-up letter was answered a year later, in which he stated that his range of motion is almost normal, his strength in the limb and consequent comfort quite normal.

Case No. 4—G. D., aged 44. Compound fracture upper third left femur in November, 1920. Wired. Wire and sequestra removed, angulation ensued. Under treatment about one year.

Seen by me in December, 1922, and 30 degrees of motion found in joint, in spite of vigorous efforts on part of patient to gain more. He would sit on a table with block and tackle attached to foot leading to pulley behind, and cord coming forward on which he would pull, but with no result.

Operation done in December, 1922, and right angle flexion obtained, which, however, he had to fight to keep, but succeeded, as was shown at examination one year later.

Case No. 5—H. M., aged 22. Fracture of left femur, middle third, in November, 1921. Open reduction by writer same month, beef bone plate and screws applied. Union delayed, Wassermann two plus, and hence was in plaster spica five and a half months. Union eventually solid, good position, no suppuration, but flexion range of 30 degrees only. After six months of physiotherapy, more anti-luetic treatment, vigorous active exercise efforts, etc., the range of flexion was no greater, and operation done in December, 1922. Here again the vasti had to be cut freely before the joint flexed with rupture of a considerable amount of soft intracapsular adhesions, perhaps due to a luetic arthritis. There was no post-operative flare-up, however, but extension was recovered with some difficulty, as there was a chronic arthritis, probably luetic, with fat pads anteriorly for some months. He worked hard at the exercise treatment, and in March, 1923, had 115 degrees flexion, with three to five degrees loss of extension only.

SUMMARY

An operation entailing no risk to important structures, which presents no especial difficulties and will give a flexion range sufficient for all practical purposes in life, and which gets rid of an ugly tiring limp and a position of the limb which is always awkward and in the way, as in sitting in a street-car.

The operation requires three weeks in bed, after which the patient can be up and about on crutches, and would permit a return to light work within three months.

More radical cutting of the quadriceps would give flexion well beyond a right angle, but at the expense of much slower recovery of full extension, and hence is not advisable.

By the clinical findings at this operation, it is easily seen that resistance to obtaining a useful flexion where slight flexion power already exists is due almost exclusively to damage to the muscle and not to joint adhesions, hence manipulations of the joint are useless, in that force sufficient to stretch or tear the quadriceps is dangerous and should never be employed. This accounts for the almost universally poor or tragic results following attempted manipulations of the knee.

The subject of bony ankylosis of the knee is, of course, outside the scope of this article, but an

arthroplasty of the joint should never be attempted without careful consideration of the condition of the quadriceps muscle, as it can easily be seen that the Bennett operation may have to be done to obtain useful motion after the arthroplasty has been completed.

Furthermore, a chronic arthritis can develop from too prolonged and vigorous attempts at flexing the knee due to the constant strain and pull upon the patellar ligament. The pain is always felt in this region and not at the site of the adhesions or in the course of the quadriceps, consequently attention is wrongly directed to the joint as causing the restricted motion and not to the real cause above.

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DISCUSSION

HAROLD D. BARNARD, M. D. (2417 South Hope Street, Los Angeles, Calif.)—I do not believe that Dr. McChesney needs to be worried about the popularity of the operation of lengthening of the quadriceps tendon as advocated by Bennett. Obviously, because of the indications and contra-indications for the operative procedure, the occasion to use it presents itself in a very small percentage of patients, even in the practice of those who interest themselves purely in this type of work.

It is my opinion that the rationale and the practical applicability of this procedure is already well established—at least among that class of surgeons who are most often confronted by this particular type of problem. The personal equation associated with the after treatment of this procedure is extremely important. The after treatment is accompanied by a considerable amount of pain, and the reaction of the individual patient towards this pain is in direct proportion to the speed with which the maximum amount of function as an end-result is obtained.

I would also warn against the application of this procedure in arthritic patients, even of a very minor type. The end-results obtained in one of our cases in which there was a very moderate amount of arthritis were rather disappointing, and this failure to obtain a better result in this case was unquestionably due to the underlying arthritis, even though, as previously stated, it was of very light grade and was duly weighed and recognized, discussed and considered, prior to the adoption of the surgical procedure. Even the permanent loss of the final 10, or even 15 degrees, of full extension actively, is of very minor importance and of no particular consequence to the patient, and is not to be compared to the satisfaction to these cases of the additional arc of flexion obtained.

When applied to properly selected patients, this operation has come to stay.

GEORGE ROTHGANGER, M. D. (4501 San Pablo Avenue, Oakland)—It is a pleasure to read what Dr. McChesney has accomplished with the Bennett operation in those all too frequent cases of stiff knee attendant upon fractures of the femur. The success of his first case, while not due to fracture, is especially brilliant and must be a great satisfaction to him. The second case shows the limitations of the procedure, and the fourth and fifth the difficulty in holding the flexion secured by operation.

The causes of stiff knee should be held in mind by all of us treating fractures of the femur. The most common of these, in the reviewer's experience, is prolonged immobilization to secure union, the delay being usually due to lack of apposition of fragments and much less frequently to sepsis.

LEONARD W. ELY, M. D. (Stanford University Hospital, San Francisco)—Dr. McChesney is to be congratulated upon the results of his work upon a class of patients who ordinarily occasion a great deal of worry and trouble. It is always most annoying to be confronted with this stiffness of the knee after treating a fracture of the shaft of the femur, but personally I should hesitate to resort immediately to a Bennett operation until I had tried milder measures. However, I am ready to admit that these so-called milder measures are not without their danger. I allude especially to passive motion. Sometimes, under ether, without too much force, the knee may be flexed a few degrees. Apparently, in some instances at least, these first few degrees are very important, for after motion has once been started thus, the patient himself can gradually extend his range. One other point—always be sure that the knee-joint has not been fractured at the same time as the shaft of the femur.

METASTATIC BONE CARCINOMA

By LYELL CARY KINNEY, M. D., *San Diego*

The clinical course of metastatic bone carcinoma is not consistent with the pathology.

Extensive metastasis with pathological fractures may occur before the primary growth is recognized.

Bone metastasis is not more painful or disabling than any other bone lesion of similar location.

Bone metastasis may be latent for months or years.

Bone metastasis may occur many years after surgery without local recurrence or enlargement of any lymphatic chain.

Symptoms and disability may fluctuate without relation to the progress of the disease.

DISCUSSION *by W. O. Weiskotten, San Diego; W. L. Huggins, Los Angeles; Henry Snure, Los Angeles; W. Edward Chamberlain, San Francisco; Maynard C. Harding, San Diego.*

THERE are many inconsistencies in the course of bone metastasis. The insidious onset, lack of disability, latent periods, and fluctuating symptoms make it hard for the physician to accept the diagnosis, and that diagnosis is often seriously questioned during the course of the disease. Also the roentgen examination reveals two widely different types of invasion that are confusing and at times difficult to differentiate from other lesions.

Probably the majority of slow-growing carcinomas give bone metastases. Schmorl estimates that 34 per cent of all carcinomas show gross metastatic bone lesions or microscopic deposits in the bone marrow. Kaufmann states that 70 per cent of carcinomas of the prostate and 50 per cent of carcinomas of the breast show bone lesions at autopsy. Bumpus has found 30 per cent of bone metastases in all cases of carcinoma of the prostate at the time the primary lesion was discovered. Jolly and Frankel report bone lesions secondary to practically all forms of carcinoma. The majority of metastases follow carcinoma of the prostate and breast, malignant adenoma of the thyroid, and hypernephroma. As Moore states, true carcinoma of the thyroid rarely metastasizes. Metastasis from rapidly growing visceral tumors is rarely found in bone, probably because of the short duration.

The usual location of metastases from the breast are: ribs, spine, femur, ilium, skull, and humerus. It is not uncommon to find all of these bones involved if the patient lives long enough. The lesion from the prostate reaches first the pelvis, lumbar vertebrae and femur, then, occasionally, the scapula and clavicle. A metastasis in the scapula is usually prostatic in origin.

The pathology of bone metastasis depends upon the primary lesion. If the original tumor is rapidly growing, with little stroma, the metastasis will be a rapidly destructive lesion and the bone will melt away before it. In the long bones the growth starts

in the marrow and expands in all directions, completely destroying the cortex or adjacent cancellous structure. In the vertebrae the destruction is an irregular, honeycomb absorption with irregular edges and leading to triangular compression. There is no new bone production; the process is purely destructive and the bone is replaced by translucent mass.

In contrast to this, if the original carcinoma is slow-growing or one having a large stroma content, the metastasis will show very little destruction and be accompanied by reactive sclerosis in the involved bone. The metastatic emboli may be too small to be demonstrated and the reactive inflammation throw down a chalky envelope that gives irregular increased density to the entire bone. Recklinghausen describes this type of metastasis as a carcinomatous osteitis. There is no formation of new bone with bone architecture, but calcium deposits surround minute cellular metastases to limit their growth. There is no cortical or periosteal thickening, but a diffuse irregular sclerosis. This osteoplastic type of bone metastasis is early and extensive in carcinoma of the prostate; the chalky appearance of the spine and sacrum being almost pathognomonic of prostate origin. However, it occurs in 14 per cent of breast metastasis and may come from any slow-growing carcinoma, whatever the origin.

The two types of metastasis may occur together in the same bone, or, as in case No. 2, there may be a destructive lesion in the humerus and an osteoplastic involvement of the pelvis. The osteoplastic lesion may break down as the disease progresses and the tumor outgrow the reactive osteitis, producing a massive translucent destruction. Case No. 7 presented a typical osteoplastic metastasis in the pelvis, and one year later showed a typical osteoclastic destruction of the wings of the ilia.

The diagnosis of bone metastasis may be very difficult. Primary round-cell sarcoma presents a picture identical with that of osteoclastic carcinoma. The sarcoma is more frequent in the epiphyses, occurring below the elbow and knee in young patients, while the bone carcinoma is situated near the nutrient canal above the elbow and knee, and usually has a demonstrable primary lesion.

Paget's disease very closely simulates metastatic carcinoma from the prostate. Both may show the same chalky, white density of the spine and sacrum. The differentiation is made by search by primary lesion in the prostate or the typical bone picture of osteitis deformans in the extremities or skull. Paget's disease is a true proliferating osteitis; the architecture is destroyed, but again laid down in long longitudinal striae with proliferating periosteal bone and thickening of the cortex. Carcinoma does not give new architecture or periosteal proliferation. Carmen points out the difference in the lumbar vertebrae which are widened and flattened in Paget's disease, but retain their outline in osteoplastic carcinoma. Paget's disease is never localized to the pelvis, and the pathognomonic signs in the skull are usually present at the first examination.

Hypertrophic spondylitis should give no difficulty in diagnosis, for the thinning of the disks and the bony bridging form a sharp contrast to carcinoma which is limited to the bodies of the vertebrae.

Syphilis of the pelvis shows dense uniform sclerosis with cortical widening and periosteal thickening that differentiate it from the irregular granular density of osteoplastic carcinoma.

The clinical course of bone metastasis bears no relation to the severity or progress of the disease. There are usually rheumatic pains and, if the spine is involved, radiating pains. Frequently spontaneous fracture is the first evidence of metastasis. There may be extensive bone lesions before the primary tumor is recognized.

Case No. 5 showed destruction of the lamina of the twelfth dorsal vertebra, and Case No. 6 presented complete destruction of the body of the fourth lumbar vertebra before the patients knew they had a breast tumor. Likewise, there may be an extensive involvement of the entire bony pelvis, or even a fracture of the neck of the femur, with trivial urinary symptoms arising from a primary lesion in a small prostate.

The pain is usually increased on motion, and in carcinoma of the spine it is not relieved by the recumbent posture; but bone metastasis may not be more painful or disabling than any other bone lesion of similar location and extent. Occasionally there is no pain preceding spontaneous fracture.

Bone metastasis is at times latent for months or years. Case No. 2 presented the worm-eaten structure and triangular compression of the twelfth dorsal vertebra secondary to breast carcinoma and had localized pain not relieved by position. After two years the patient is sitting up and there is very little change in the appearance of the vertebra. Case No. 8 enjoyed a symptomless interval for eight years after the amputation of a breast, and now shows a typical carcinoma in the head of the adjacent humerus. Case No. 1 developed a spontaneous fracture in a painless mestastasis of the humerus following a carcinoma of the jaw thirty years previously.

Bone metastasis may occur without enlargement of the lymphatics draining the primary tumor. Case No. 4 was followed through a metastatic carcinoma after a breast amputation. There were no demonstrable glands at the time of surgery. Twenty months later a metastasis appeared in the twelfth dorsal vertebra and the wing of the left ilium, later involving the pelvis, both femora and humeri, ribs, cervical spine, and skull. At no time were there any palpable enlarged glands or local recurrence.

A most striking feature is the fluctuation of symptoms independent of the progress of the disease. The patient just mentioned had intervals when she could turn with comfort and use her limbs, in spite of the progressing destruction of pelvis, dorsal and cervical vertebrae. Hollis Potter reports a woman patient who walked into his office two years after the discovery of a spinal metastasis. Case No. 7 was examined a year ago at the hospital, showing an osteoplastic metastasis in the pelvis, sacrum and lumbar vertebrae. He was helpless, bedridden, and suffering intensely. Last week he walked into the office, claiming that he was free from pain and desiring to check the diagnosis. The examination showed complete destruction of the wings of the ilia and extension of the metastasis.

In conclusion, the clinical course of metastatic bone carcinoma is not consistent with the pathology:

1. Extensive metastasis with pathological fractures may occur before the primary growth is recognized.

2. Bone metastasis is not more painful or disabling than any other bone lesion of similar location.

3. Bone metastasis may be latent for months or years.

4. Bone metastasis may occur many years after surgery, without local recurrence or enlargement of any lymphatic chain.

5. Symptoms and disability may fluctuate without relation to the progress of the disease.

1831 Fourth Street.

DISCUSSION

W. O. Weiskotten, M. D. (First National Bank Building, San Diego)—We have been accustomed to look on any form of carcinoma as a progressive disease which does not remain quiescent, but which has a tendency to destroy life within a few years. Dr. Kinney's statement that certain forms of metastatic bone malignancy may remain inactive for years and in some instances actually show an improvement in the clinical symptoms is interesting and explains the cases which have been given a roentgen diagnosis of metastatic carcinoma and later improved to a degree which made the original diagnosis questionable.

In a general way we may assume that practically all bone carcinoma in the female has its primary focus in the breast, because pelvic carcinoma in the female rarely metastasizes. In the male the primary lesion in practically all patients is in the prostate or tongue. Theoretically, bone malignancy should be easy to recognize if one considers the cardinal points in differentiation of bone tumors, but, as a matter of fact, atypical forms of bone metastases in their early stages make a final and conclusive roentgen diagnosis oftentimes difficult. The very patients who two years after diagnosis walk into the laboratory for a check-up, make us wonder whether the original diagnosis was correct.

W. L. Huggins, M. D. (Pacific Mutual Building, Los Angeles)—Dr. Kinney's paper is a timely contribution to the study of the cancer problem. The percentages quoted are somewhat of a surprise, as I have seen very few cases of bone metastasis. This moment I recall two, following carcinoma of the breast. One occurring in the spine and the other in the tibia, both within a year following radical operation of the breast and without local recurrence in either case. Undoubtedly, there are more of these metastatic cases than the average surgeon realizes, and suspicious cases should have a careful study.

Henry Snure, M. D. (1501 South Figueroa Street, Los Angeles)—I was much interested in Dr. Kinney's report of a carcinoma recurrence of the jaw after an interval of thirty years. Recently, in looking up the literature on recurrence, I found only one report of a recurrence after thirty years; this was a case of breast carcinoma. Two other instances of late carcinoma recurrence were cited, one of the rectum after twenty-one years, and one of the tongue after eighteen years.

Dr. Kinney's opening remarks regarding difficulty of differentiation of the types of carcinoma suggest to me that if the roentgen ray societies would take up the study of carcinoma along the lines of the Committee on Registry of Bone Sarcoma of the American College of Surgeons in the cases of bone sarcoma, we would soon be able to improve both our diagnosis and prognosis of these trying cases. Close co-operation with our pathologist will be our greatest aid.

W. Edward Chamberlain, M. D. (Stanford University Hospital, San Francisco)—I was much interested in Dr. Kinney's statement concerning Paget's disease, that it would not be found in the pelvis without evidence of involvement elsewhere in the skeleton. Doubtless, that would be true if tissue examinations were possible. But we have had the experience, in more than one patient, of making a careful roentgen examination of the entire skeleton and finding evidence of Paget's disease in the pelvis only.

Kinney has emphasized the remarkable inconsistency between the progress of the growth in metastatic bone carcinoma and the patient's symptoms. This has an important therapeutic application. We must not be too quick to ascribe a lessening of symptoms to a certain therapeutic procedure. A certain cancer vaccine, now known to be valueless, was enthusiastically sponsored by careful and honest surgeons some years ago. Much misplaced enthusiasm resulted from coincidental pain remissions in some of the spine metastases which are to follow breast cancer.

Maynard C. Harding, M. D. (Electric Building, San Diego)—Having been associated with Dr. Kinney in several of the cases which form the basis of his excellent paper, I can bear witness to the very widespread and often symptomless metastases which his systematic roentgenography revealed. I have been especially impressed with the number of iliac lesions.

We all speak confidently of metastases occurring after five to twenty years' freedom from the original carcinoma. In view of the known progressive course of the disease, and of its unknown causation, we might well let ourselves think of such metastases as being possibly fresh attacks. Such a conception will at least fit in better with the newer theories about cancer.

Leisure—For What?—In a thoughtful and thought-provoking discussion of this always timely subject, George W. Alger (Atlantic) says many things of use to physicians in their daily lives and practice: "The main contribution of the automobile to the happiness of a growing leisure class, says the author, "is that it furnishes a new way of transforming an otherwise unbearable leisure into a mode of motion, with gasoline performing the function of a soothing syrup for grown-up children. . . . When we learn to classify men as inferior or superior by what they do with their leisure, we shall attain, among other results, a new angle upon race prejudice and perhaps find a new solvent for the heretofore insoluble. . . . A civilization that creates a leisure which it cannot rationally use may well be in greater danger of destruction than one that has no leisure at all. A civilization that bores its beneficiaries is perhaps even worse than one that overworks its slaves. . . . The great problem before us today is to create a civilization that does not degenerate under leisure. This can be done only by setting in operation forces making for a culture that recognizes, as no civilization since the fall of Rome has been required to do, that leisure is and must be a means and not an end; that its true value is measured by what we do with it—by whether it lifts us or lowers us in the great world of intangibles, the world not of material, but of spiritual values."

Pathetic—Dr. C. Hilton Rice, Jr. (Scientific Monthly), thus characterizes the spoiled child: "To change the feeding habits of the child requires the changing of the parents' habits of dealing with their child. For a child that is allowed to eat anything that it likes, and at any time it likes, is almost invariably a spoiled child, and the spoiled child is a difficult case to deal with. If a child gets off wrong, if he acquires dislikes for essential foods, these habits are likely to become fixed and permanent so that his whole future is affected. If ever there is a time when the firm hand of discipline needs to be used in the training of a child it is in this early irresponsible age when the child is tasting his adventurous way through the lists of foods that make up the human diet. . . . The longer a child has been on a one-sided diet, the stronger become his food prejudices and the more difficult it is to hold him to a balanced ration. It seems as though his tissues and organs become specialized, as it were, to certain kinds of foods, and always there is the old subconscious pull of habit that drags him back to his old ways of eating. That is why it is so difficult to feed the older child whose habits of diet have become fixed."

THE CHINESE HERBALIST AND THE MEDICAL PRACTICE ACT

By C. B. PINKHAM, M. D.,
Secretary California Board of Medical Examiners

As far back as runneth the mind of man has the Chinese "herb doctor" been a problem in California. We do not believe that there is a remote possibility of passing any legislation that either will effectively stop these Chinese herbalists from operating or put an end to their advertising, unless there be an unbelievable change of attitude in public opinion, an awakening of the lower courts and enforcement officers in many localities to a keener sense of civic responsibility in law administration, and more manifest co-operation evidenced by a change of policy on the part of some of our papers as to the type of advertising accepted for publication.

WE HAVE read with growing interest the article on page 330 of the March issue of CALIFORNIA AND WESTERN MEDICINE, where, in commenting on the Chinese herbalist situation in California, the Board of Medical Examiners is invited to supply some *facts* which may explain why the Chinese herbalists are permitted to advertise as they do in the daily papers. It is self-evident that the question should be directed to the advertising manager of each paper, for through him all advertising contracts are executed. A newspaper will not print any advertisement unless a contract had been signed and the "copy" had been submitted to the advertising department for publication.

As an example of the difficulties encountered in attempting to stop illegal advertising on the part of Chinese herbalists, we will relate a recent instance. Not long since the attention of the Board of Medical Examiners was called to such advertisements as "Dr. Chow," "Dr. Woo," "Dr. Lau Yit Cho," etc., and we thereupon undertook to exact compliance with the law by charging a specific herbalist with illegal use of the prefix "Dr." At the preliminary trial a charge of using the prefix "Dr." cannot be sustained unless the *advertising solicitor* will identify the defendant Chinese as the one who signed the advertising contract, frequently an impossibility, as the Chinese attendants (both translator and doctor) in the herbalist's office change frequently, or at least they change their names. Seldom will an herbalist give the same name when arrested on a second charge of violation of the law. Without identification of the defendant Chinese as the one who signed the advertising contract, the prosecution collapses.

An advertisement of a Chinese herbalist recently appeared in at least one of the San Francisco papers, reading: "If you are sick, come to us and have us give you a *scientific diagnosis* that will tell you absolutely the true condition of your whole system." This advertisement contradicts the usual court defense of the Chinese herbalists who, when charged with violation of the Medical Act, testifies that he did not "diagnose" but acted in the capacity of a storekeeper selling rice, tea, and sometimes herbs. At the preliminary hearing of the Chinese herbalist, whose "firm" used the above advertisement, the investigator for the Board of Medical Examiners, who, by the way, fully understands Chinese, testified that he understood the conversation carried on between the interpreter and the Chinese (doctor) herbalist, who asked what pain the patient had, whether heart, back, or stomach, that the interpreter asked a fee of $12, was paid $5, and when asked for a receipt, gave the witness a small piece of card with a number on it, telling him to return. On the second visit the Chinese (doctor) herbalist placed the patient's hands on a pillow, felt the pulse, and said "She got a bad cold."

The advertisement mentioning the "scientific diagnosis" quoted above *was not admitted in evidence at the trial because the advertising solicitor testified he could not identify the defendant Chinese as the individual who gave him the advertisement.* This case is now under consideration by a police court magistrate as to whether the evidence submitted is sufficient to hold the defendant Chinese for trial.

The Better Business Bureau, which stands for honesty in advertising, should interest themselves in advertising of this nature, particularly when the statement is made that a "scientific diagnosis" will be given. Our investigators report that the "scientific diagnosis" made by the average Chinese herbalist consists in feeling the patient's pulse, looking at his tongue, and asking some questions as to his condition. It is then customary to brew some concoction for the patient to drink, some often given him to take away, and he is told that treatment will cost $10 to $12 per week, payable in advance.

CALIFORNIA AND WESTERN MEDICINE, May, 1925, page 617, in an editorial, "What About These Law Violators," quotes the above-mentioned advertisement, reading: "Come and have us give you a scientific diagnosis that will tell you absolutely the true condition of your whole system" (Chan & Kwong—Chan & Chan), with the comment, "If this isn't flagrant disregard for law, what is it? Why are these law violators not punished?" As a result of the activities of the Board of Medical Examiners this illegal advertising was recently corrected. The records of the Board of Medical Examiners show we have been most active in presenting to the courts throughout this state what we consider as irrefutable evidence of violation of the Medical Act on the part of many Chinese herbalists.

A certain Oakland Chinese herbalist, referred to as "Dr." in his newspaper advertising, when recently brought to trial on a charge of violating the Medical Practice Act, *displayed letters patent from Washington, showing he has been issued a patent on his name, thereby claiming legal authority to use the prefix "Dr."* despite the prohibition of such prefix by the California law. Legally this had no bearing on the case and properly should not have been permitted presentation in court.

The system under which preliminary hearings are held differs in various localities. The city charters of Oakland and Los Angeles permit a trial *by jury* in the police court, whereas in the majority of California cities and towns the preliminary hearing of one charged with law violation is held either before a justice of the peace (if the community be small) or before a police judge in the larger cities, such as San Francisco. After the evidence has been submitted the judge takes the matter under advisement, dismisses or holds the defendant for trial.

Considerable time invariably elapses between the

filing of the complaint and the first or "preliminary" hearing of the charges before the justice of the peace or police judge. This delay is often due to the congested condition of the court calendar; however, not infrequently the hearing is put over time and again at the request of the attorney for the defendant, who hopes as a result of long delay that the witnesses for the prosecution will have disappeared. In the instance of a trial (not an herbalist) recently completed in the Oakland Police Court, our Investigation Department reported that practically two and one-half years had elapsed between the time of arrest and the time of trial of said violator. During this period of delay seventeen postponements were reported. After the defendant has been held for trial in the Superior Court, again ensues a more or less extended delay, frequently occasioned by the attorneys for the defendant. The longer the trial is delayed the greater are the possibilities that witnesses for the prosecution will have disappeared.

The records show a surprising number of dismissals in the lower courts. Reference to the 1921 annual report of the Board of Medical Examiners (page 35) shows that during that year fifty-four Chinese herbalists were charged with violation of the Medical Practice Act in Northern California and twenty were dismissed (about 38 per cent); while of fourteen arrested in Southern California, only one was dismissed.

The legal report of the board is printed in each issue of the directory, which makes possible a complete check on all phases of our enforcement work.

An article, "The Problems of Enforcement," page 13 of the 1920 annual report of the Board of Medical Examiners, reprinted on page 231 of the 1921 directory, explains some of our difficulties.

Assembly Bill 440, introduced by Mr. Ed. Smith, which occasioned so much comment during the 1925 legislative session, had possibilities in effecting some modification of existing conditions and it has been suggested that a satisfactory conference bill might have been drawn, but we can foresee no legislation that will "close up" the Chinese herbalist.

Perchance a few Chinese herbalist cases reported by our Legal and Investigation Department may prove of interest.

A certain Chinese herbalist not far from San Francisco was reported by our former special agent to have passed him "protection money" in plain sight of a police officer, who promptly arrested the Chinese. The case was dismissed, *the judge holding that inasmuch as said investigator was not a sworn officer of the law, the giving of money for protection did not constitute bribery, nor was it an offense.* The law was thereafter amended so that special agents of the board are now sworn officers of the law.

A Chinese herbalist who gained considerable notoriety during the past legislative session was arrested January 5, 1925, in a neighboring city. The case was continued until May 8, 1925, when the case was put over to September 15, 1925. Commenting on the situation, our special agent on May 9, 1925, reported that list of witnesses was submitted to the district attorney on February 28, 1925, and return made May 7 (the day before trial) showed only one of the four witnesses could be found; that this information was conveyed to the representative of the board "twenty minutes before the case was called . . . the jury had been summoned . . . although the witnesses were not obtainable. . . ."

Some time ago our investigator reported the arrest of a Chinese herbalist in a northern county. A search of his premises netted abortion instruments, admittedly his, and he confessed practicing medicine. Conviction.

A certain well-known Chinese herbalist in a Northern California city, prominently involved in the recent legislative controversy, had at his office door for many years an ornate brass sign reading, "Physician and Surgeon — Eye, Ear, Nose and Throat," until after many attempts he was finally convicted by the legal department of the Board of Medical Examiners. This conviction was sustained by the higher courts, and he then paid a fine of $500 and spent four months in the county jail.

It is reported that this wily Celestial for years has retained each new district attorney as his *personal* attorney. Newspaper reports relate he "has been fined heavily in the federal courts and justice court for selling drugs illegally." He has also been charged with performing illegal operations. Prosecution of this individual has been surrounded by unbelievable difficulties.

If space permitted we could relate many other instances to show that the Chinese herbalist is not the asserted innocent storekeeper selling only tea, rice, and occasionally some herbs.

An illuminating article narrating the operation of the Chinese herbalist was published in the Dearborn Independent of August 9, 1924. Therein is stated that the Chinese medical system was founded in 1578 and has not been changed since. "For 346 years Chinese 'doctors' in China and abroad have followed this book (Pen T'Sao) without changing their drugs, their compounds of those drugs, or their methods of medication."

"Diseases in China," by Jeffereys and Maxwell, relates "To become a physician a Chinese states to his friends and neighbors 'I am a physician.' This is the limit of required preparation. The Chinese doctor's diploma is a more or less handsome signboard, which announces his determination to the neighborhood."

The China Medical Journal 38:679, August, 1924, recites that Chinese physicians are mostly purveyors of superstition, excepting a small group of those trained abroad or at home in modern medical science. Ancient customs embrace or condemn views quite opposite to Occidental standards. Most native Chinese physicians rely on few remedies which may be of value, but the composition is a closely guarded secret.

135 Stockton Street.

EDITORIALS

THE FIFTY-FOURTH ANNUAL SESSION, CALIFORNIA MEDICAL ASSOCIATION

We had hoped to publish in this issue something about the session of the California Medical Association held in Yosemite, May 18 to 21. This we are unable to do because we *must go to press on schedule* and were not able to secure enough advance material to make the June issue interesting about convention matters. The July issue will carry what we can get of news, presidential, section chairmen, and other general addresses. Also, we hope, the proceedings of the House of Delegates and Council.

THE CHINESE HERBALISTS AND THE MEDICAL PRACTICE ACT

Particular attention is invited to the article under the above title by C. B. Pinkham, executive officer, California Board of Medical Examiners, published on page 737 of this issue. Doctor Pinkham tells a disheartening and discouraging story of a matter that is a disgrace to California. We get a peep into conditions that read like tales of other bootleggers; some "slants" that indicate with clarity what mercenaries will do for money and how they can and apparently do reach far into our social structure for support that they must have to successfully carry on their nefarious practices *in violation of law,* and also at the expense of public health and welfare.

Why is it that these bootleggers and traffickers in health can, and do, not only violate the law openly and flagrantly, but boast of it and invite other victims in paid space in some of our newspapers daily? Doctor Pinkham indicates an answer and how it works. What a spectacle it is that a *"Doctor Yun,"* or some such name, may secure "letters patent" from the patent office of our national government and then introduce this legal document in defense of his violation of the laws of California designed to protect the health of our citizens!

The bureau of the patent office at Washington is under Secretary Hoover. We would like to see this practice put up to him, having confidence that, if in his power, it would be discontinued. The practice of federal bureaus of nullifying and overriding state laws by executive action of some political clerk or other creature is not as popular in Washington as it once was, and we have every confidence that in so far as lies in his power our fellow Californian, Secretary Hoover, will not encourage the creation of "doctors" by "letters patent."

Doctor Pinkham's illuminating comment upon the practices of some of our lower courts explains much. Such publicity ought to be followed up, giving names and dates. CALIFORNIA AND WESTERN MEDICINE will be glad to publish enough of such facts from month to month to eventually arouse the interest of some worthwhile civil organization genuinely concerned with practical problems of public welfare. Doctor Pinkham, we regret to note, appears to feel that in our various references to "herbalists" and other unlicensed persons who practice medicine in California in violation of law, but nevertheless with an apparent cast-iron immunity, we are criticizing the Board of Medical Examiners. Nothing is further from our intention. All the members of the board are educated doctors of medicine and most of them members and officers of the California Medical Association, and therefore part owners of CALIFORNIA AND WESTERN MEDICINE. We are aware of some of their difficulties, but we do invite them to use CALIFORNIA AND WESTERN MEDICINE more fully and freely, as has been done in the present instance, in keeping their problems before our physicians, other health agencies, and through them, the general public. Such publicity reaches far and it will reach farther as time goes on. It is the only available method by which physicians can widely show their sound position and active interest in this important plan of public health and even decency.

No, Doctor Pinkham, we are not after you or our other friends who are members of your board. All doctors pay, and most of them willingly, a special tax to carry on your work. If a light step upon your toes produces such illuminating discussions of an important subject as your present article, and such can be obtained in no other way, other bruises may prove salutary.

We want to work with you in a common cause—not against you; but most important, we want to work.

HOW PHYSICIANS' SERVICES ARE MADE AVAILABLE TO THE PUBLIC

Once upon a time a young lady made herself and her surroundings as attractive as she knew how or could afford and then waited for some young man to become interested in her. Most young physicians obtain their start in practice by an analogous method. It is said that modern young women are adopting more progressive tactics, and there is an element of considerable magnitude developing among physicians by which they also will become more active in getting started in their life work. Some of these methods will be considered in subsequent articles, but first it is well to look into the old-fashioned way a little more closely.

The vast majority of people still consider it their personal privilege to select their life partner, their physician, and their dog. Many and divers attempts have been and are now being made to restrict personal liberty upon all three points. If any of them makes progress enough to arouse general interest, there will be a reaction that will make prohibition enforcement look like a tea party.

Not only do most people believe that their selection and method of compensating their physician is a private and personal matter, but the vast majority of physicians agree with them. While this method often means lean years for the young physician, it nevertheless is part of the charm of the profession, and it is an important element in the romance of medicine and the sanctity of the relations that surround and guard the patients.

Young physicians always have, and probably always will, object to the sacrifices most of them make during the hard, lean years while they are making personal friends and converting them into

professional friends and patients when medical services are required. Most older physicians look back upon these years without regret and with a realization of all they meant in self-discipline, self-analysis, increased study, hospital experience, and the development of the capacity for human understanding and sympathy that proves so necessary in their work.

In other days, when part of the medical student's training consisted in an apprentice service with an older physician, many of the first and difficult lessons were learned by precept and example. Nowadays the student spends his days in laboratories and hospitals, where every activity is part of a well-organized whole; where patients are often "cases," and problems are red ink and black-ink notations on "case records." The modern method undoubtedly produces a more scientific physician and one more competent from that standpoint. But modern education leaves him with more serious problems than had the young graduate of a few years ago. He is trained to rely upon laboratories, x-ray, and many other expensive and complicated devices for diagnosis and treatment. He finds it difficult to practice medicine without them, and he cannot afford to buy them. Even many of the hospitals, particularly in smaller communities, are without these accessories, and the young graduate has a hard time readjusting his methods to meet the actual conditions of life.

The greatest problem of the young physician is to fit himself into the social, economic life of the community, and particularly to fit his professional personality into things *as they are*. In this, the art and personality of medicine, the modern young physician has a much harder time than his colleague of a few years ago who learned these lessons from his preceptor while serving his apprenticeship.

MEDICAL ORGANIZATIONS ASSUME LEADERSHIP

County and state medical associations here and there are establishing clinics and otherwise taking steps to put medical leadership actually into effect. We have been saying this should be done for about as long as medicine has been a profession. The doing of it is another matter, but if the sporadic attempts are well planned and well supported, there is a chance that educated physicians might again take a more influential place in the practice of personal and public health.

In some places county societies have started and are operating their own clinics for the care of the economically and socially insolvent. In other places they have established co-operative plans with other health-promoting organizations, whereby the medical society fixes policies and furnishes the physicians, while the co-operating public health board or other organization supplies the funds and the clerical and technical assistants who operate under the supervision of the medical society. In Illinois, for example, according to Doctor H. M. Camp, secretary of the State Association (Bulletin A. M. A., April, 1925), this movement is attaining interesting proportions.

What medical society will be the next one in line?

Medicine in the Public Press

The "Fast Way to Health"—"Dr. Frank McCoy, 'noted dietitian and diagnostician' of Los Angeles, was brought to San Francisco by the San Francisco Bulletin," says that paper, "to give a series of lectures for its readers, free, on 'how to reduce' and also how to travel the 'fast way to health' on the proper combination of foods and correct physical culture exercises. The lectures began Friday, May 15, 'on the ART of reducing.' The lectures were much advertised as open to everyone—both men and women—without any 'charge whatever.' Come and bring your friends," advise the headlines.

On the illustrated half-page, telling about what this "noted doctor" can do, we note of entertaining value to physicians that "Dr. McCoy says that *no matter what the original cause of the goiter may be, the cure is always possible through the use of the fruit fast.* This treatment removes the thickened material from the blood, and the circulation carries it off. The thyroid decreases in size and sometimes disappears entirely, but if the size does not entirely diminish, the load is taken off the heart and the circulation is improved." There is plenty more just as entertaining and (?) reliable.

The Ideal of Child Health—An editorial in the Woman's Home Companion, under this headline, says in part that: "There is a doctor in New York who gets a fee of $15,000 a year just for guarding the health of a millionaire's children. He calls twice a week, plans their diet and their exercise, and catches any small ailment before it can become serious. If the children fall ill, he treats them. The idea, however, is to keep them well. This is worth $15,000 a year to the millionaire, and it would be worth as much to every parent. But few can afford even a hundredth part of that sum for a physician's care. *For a small fraction of it—or $1.50 a year—the readers of this paper (Woman's Home Companion) get once a month the advice of experts on child health.*"

The italics are ours. Such cheap medical service is entitled to have italics.

Modern-day alienists are creating the impression that to be insane is not really a reflection upon one's intelligence.—Birmingham Age-Herald.

"Wrong-Headed Zealots"—Under this heading the New York Herald-Tribune says, editorially: "The foes of medicine calling themselves the Citizens' Medical Reference Bureau touch the extreme of nonsense in objecting to the proposed statue of the dog Balto because he made his glorious trip to Nome on a nefarious errand, carrying antitoxin to diphtheria sufferers. They seem to think that Balto is an eminent bacteriologist. The protest is only a grotesque play in the campaign to harass physicians in their winning fight against a deadly disease.

"The wrong-headed bureau seizes this occasion to spread the impression that diphtheria antitoxin is a failure. It practically represents Dr. William H. Park, director of the city's laboratories, as having admitted as much. Dr. Park, of course, has said no such thing. No physician in the country is more convinced of the wonderfully efficient results of antitoxin and of the value of immunization by means of toxin injections.

"Use is made of the statistics of Willard Parker Hospital to prove a high rate of mortality from diphtheria. The anti-medical bureau stresses the 35 per cent of mortality among children under 3 years old at the hospital from 1919 to 1923. It omits to mention that in the years before antitoxin was administered the rate was 80 per cent. Nor does it explain that a great many of the cases are received by the hospital in an advanced stage, when antitoxin is all but powerless. Prompt treatment is essential.

"Before antitoxin came into use, the death rate from diphtheria in New York City was 150 per 100,000 of population. Thereafter, in 1898, it was reduced to 54. With some fluctuations, it was reduced in succeeding years to 22 in 1919, when the immunizing vaccine became

available. It declined in 1923 to the low mark of 9 per 100,000. The life-saving potency of antitoxin applied in time and the protecting virtue of the preventive injection are facts abundantly proved. Let no mother or father for an instant credit the assertion of persons who hate physicians and all their works that the modern treatment of diphtheria is of questionable value. It is indeed one of the great triumphs of medicine. Were every parent instructed, one of the most dreaded diseases of childhood might ultimately be subdued.

"It is sorry business for any organization, however sincere, by deceptive use of figures and the garbling of statements of a public health official to try to cast doubt where none exists on the efficacy of antitoxin and of immunization against diphtheria."

The Ubiquitous "Sunday Supplement"—Doctor, was your sense of humor or your enjoyment of the ridiculous sufficiently elastic to permit you to read in a recent Sunday Supplement how cockroaches act as "Carriers to the Carrier" of the "cancer germ"? Some article that! and as for the illustrations, Oh boy! The trouble with fake stuff of this character is that some people not officially rated as especially "moronic" believe it, as is attested by letters of inquiry. The chief reason for this alleged scientific article is to promote the use of "roach powder" as the "only way" to get rid of these "bugs that bring us cancer."

"Baby Congress and Health Exposition" Under Medical Auspices—Newspapers have given much space to a national baby congress and health exposition sponsored by the Illinois Medical Association. It is said that "the congress has the support of the American Medical Association and the Chicago Medical Society, whose officers, with those of the Illinois State Medical Society, are in supervision."

Some 14,000 babies and many older children and adults attended the exposition, which was "in no sense a beauty show, but strictly a health show. All things related to health found a place in the exhibits, and no exhibits of disease found a place on the exhibition floor."

Provisions were made for a complete physical examination of all persons by a staff of 765 members of the Illinois Medical Society.

This looks, at this distance, very much like medical leadership in action.

Public Schools for Babies—The Metropolitan press of an Eastern city recently gave prominence to a movement—or a gesture—to provide public schools for babies —"nursery schools." It seems that some of the uplift organizations, after repeated "conferences" and much "research" have arrived at the conclusion that the "only way" to properly prepare oncoming generations to meet adequately the rough and tumble of life is to take the babies away from their "incompetent mothers" and "unsanitary and unhealthy home environment" generally, and place them in specially designed public schools. In fact, the "Infant School Society" already have several of these schools in operation. They are apparently modeled closely after those that have been featured as part of the health activities of socialistic centers in Europe.

Publicity As a Health Asset—"Experience has shown," says the Ohio Health News, "that the wider the spread of publicity, the less the spread of disease in any neighborhood epidemic; that the more concealment is tried, the longer the disease lingers; that other means of communication exist whereby news, especially bad news, travels rapidly, and generally badly distorted; that plain facts about local health conditions should always be given the public."

Spoofing the Press—Medical editors, who have an opportunity to see all they care to see of the "News Release" about health and welfare, are at first amazed and then become thoroughly disgusted with the stupid tommyrot that government bureaus and other propagandizing agencies and persons have the temerity to try to get published as "news" or as "scientific data." For example, the Census Bureau gives us the interesting and useful information that in America some 187,000 babies died last year between birth and one year of age, and that over half of these died during the first month of life. Another government bureau, after what was no doubt an expensive "survey," then takes the Census Bureau figures and their own "findings" and turns them loose, ready to print as *"news."* This alleged news contains statements that are about as much news as is a statement that cough is a symptom of tuberculosis. Some of the statements that they apparently consider news are:

"A thorough knowledge of the causes of infant mortality is the first step toward their complete control." What an erudite statement!

"The pathological causes of infant deaths must be reported on death certificates by the physicians in attendance. But the analysis of infant mortality, if it is to be thorough, must be carried beyond the pathological cause *to antecedent and predisposing causes and casual factors."* (Italics ours.)

Among the causes of infant mortality which this bureau feeds out as *"news"* are:

"Seasonal conditions influenced the mortality rates."

"Factors relating to the physical condition of the mother also influenced the mortality rate."

"First-born children had a slightly higher mortality than second-born."

"The mortality rate was highest for infants born within a short interval (within approximately one year) after preceding births."

"Mortality from all causes was much higher among twins and triplets than among other babies."

"Mortality among the exclusively artificially fed babies averaged between three and four times that among the exclusively breast-fed."

"Housing congestion, employment of the mother away from home, and low earnings on the part of the father, were other very important factors influencing the infant death rate."

Facts, yes, but already so well and widely known that they have about as much news value and are about as dramatic as the Ten Commandments.

The London Spectator offered a prize of five pounds for a four-line epigram on "The Modern World." The prize was awarded for the following quatrain:

Science finds out ingenious ways to kill
Strong men, and keep alive the weak and ill—
That these a sickly progeny may breed,
Too poor to tax, too numerous to feed.

Daddy Long Legs begins to have scientific value as applied to human beings, according to "release material" from certain universities to the press. Editors and news writers have gotten quite a "kick" out of the statements of "professors" that the length of the leg is proportionate to brain and mind capacity. Quite encouraging to men of the Lincolnesque type, but, as one editor says, what about the "Little Mac," the Harriman, and the Grant types. Then what about the long-shanked Africans? When it comes to the anthropological indexing of the female shank, Oh Boy! who would not like to be a "professor"?

"Big fleas have little fleas
Upon their backs to bite 'em;
Little fleas have lesser fleas,
And so ad infinitum."

This is about all of the news value that is left of the two-day front-page story about the fellow who "discovered" that even germs have parasites. That most all living things are both benefited and pestered by parasites and symbiotic associates has been known for generations. That this biologic phenomenon extended further than was demonstrated was no new doctrine. That a step, a useful step, forward in determining this phenomenon, as well as its significance when applied to some living things of microscopic size has been taken, is important. However, many, many hours of hard study and countless experi-

ments must yet be made before the road will be interesting or the work important to the average reader.

"Glandular Cure for Arthritis Claimed," reads the headline in one newspaper, and "Gland Tests Restore S. F. Derelicts," says another.

These and other headlines in other papers display a story that reads like—entirely too much like—a fairy tale:

"Gland transplantation, one of the foremost achievements of modern medical science," says one paper, "is to be credited with another series of almost miraculous cures as a result of experimental work carried on at the San Francisco Relief Home." . . . "Working under the direction of Dr. William C. Hassler, city health officer, for the last two years, Doctor Justin McCarthy has been so successful that he was able to state, in an interview today, that in more than 50 per cent of the arthritis cases treated the sufferers have found almost complete relief from pain." . . . "There have been any number of cases of inmates, bedridden and tortured for years by arthritis, who have been altogether relieved of pain," continues the interviewer. "Numerous Relief Home patients who have vainly tried every other remedy—milk injections, vaccines, and all the usual internal and external remedies—have been completely relieved."

If this story is even approximately true, most physicians will regret that the facts were not first released to scientific bodies of physicians. If the story is not true, the usual harm will follow. By the way, which particular kind of the several known types of arthritis of different causes and the others about which we do not know much will this new gland rejuvenation method cure?

Science or Sex Muckraking?—Some time ago we noticed a sex muckraking story about 1000 unmarried college women. The report claimed to show, as a result of a "confidential questionnaire," that many of them had, to paraphrase Kipling, "learned about men from him." A large number of these women admitted also, according to the report, to have played up and down the scale of abnormal sexual practices. The report contained nothing of special interest, nor that could be interpreted as surprising information to physicians, but psychologists and the general public seemed to get quite a "kick" out of the ramble through the fields of its salaciousness.

Now (Mental Hygiene), we have the second part of the story, dealing this time with 1000 married women of college and near college education grade. There are more of the same sort of figures and tables that tell of the sexual vagaries of the victims. Much of the effort of the "surveyors" appears to have been devoted to establishing what, if any, relation exists between the feelings engendered by masturbation and other sélf-inflicted sexual practices and those due to normal sexual intercourse. The average wholesome, clean-minded, non-medically educated person, after reading these reports, will want to take a bath.

The published conclusions from the extensive and expensive *survey* are about as sterile as any we have read for a long time.

Walter Camp died suddenly just after completing an article for a magazine, telling how simple it was to secure and maintain a status of the "pink of condition."

The death, thus dramatically, of the world's most aggressive "positive health," "live as long as you please" faddists, has been followed by a perfect orgie of controversy among physical culture faddists as to how it could possibly have happened.

Many newspapers are devoting considerable space to discussion of this subject by intelligent writers. The following abstracts from a series of such articles appearing in the Brooklyn Daily Eagle deserve notice. The author, Thomas S. Rice, says that "for many years physicians and other experienced observers have been calling attention to the dangers in much of the advertising propaganda for the immediate undertaking of daily, and more or less violent, exercise by those who have been inactive since boyhood or early manhood. *It is a serious menace to longevity, unless the individual who responded to the advertising limited himself strictly to what is recommended by a competent physician after thorough examination, and with his recommendations carried out under the eye of a scientifically trained director.*

"So vast has become the volume of reckless advice emanating from retired boxers, wrestlers, strong men and the like; and so many persons are enthusiastically going in for "physical culture" without first consulting a physician, that it would seem a word of warning might well be issued by the daily periodical press.

"Has the cult of physical culture, carried to extreme as it now is being carried, done more harm than good in the way of shortening instead of prolonging human life? Observation extending over a number of years long ago convinced me that the professional exponents of physical culture are shortening the lives of thousands of valuable men and women. Issue will be joined by those who insist upon everybody keeping himself or herself fit by taking physical exercise every morning or evening, according to a schedule. They will urge that regular exercise is absolutely essential to those who wish to escape an early demise.

"We will agree that a certain amount of incidental exercise is essential, but we also believe that the physical culture exercise, especially for those who have not had previous training for many years, is a menace to longevity. Walter Camp's own death before he reached the sixty-seventh milestone will need a lot of explaining. . . . Physical culture adopted by middle-aged persons whose work has been more or less sedentary since boyhood, or early manhood, is an exceedingly dangerous undertaking for those who would wish to reach three score and ten. The extra strain upon the heart and arteries brought about through systematic physical exertion by those whose hearts and arteries may be said to have become "set in their ways," must inevitably have its effect, but very, very few physical culture enthusiasts, except in the best gymnasiums, make their warning clear to those whom they are so eager to proselyte.

"Anybody may set himself up as a physical culturist. Not only that, he may advise his clients, or whatever he may choose to call them, to pursue a course that must inevitably shorten their lives, and no check at all may be placed upon him.

"Any boxer, wrestler, football player, runner, shotputter, etc., who has passed out of competition is privileged to open a gymnasium and tell the world that he is capable of giving fit instruction to all comers, regardless of their present apparent health or their past history. . . . Innumerable 'professors' are giving what they fondly call 'physical culture lessons' without requiring the applicant with fee in hand to consult a physician, and every such 'professor' should be suppressed.

"Many of the 'professors,' mostly those in the larger towns or cities, propose, but seldom compel, examination by a physician—and in a large percentage of cases it may be safely asserted that the examination has absolutely no effect upon the 'professor' or the client, in regard to the amount of exercise the client takes. The 'professor' may suggest that the client go easy for a while, or knock off for the day, but if the client asserts that he is feeling extra fine and wants to put in another hour of handball or handling the weights or the pulleys, does the 'professor' stop him for fear that the client may overstrain his heart? Not to any large and appreciable extent. . . .

"As a rule, the 'professor' not only refrains from checking overly ambitious or enthusiastic clients, but actually encourages them to speed up and prolong their exercise. No malice is intended. The 'professor' really believes he is helping the client by encouraging him to work briskly and frequently, and the more conscientious the 'professor,' the more harm he may do when his gymnasium is open to all comers of all ages.

"How frequently is a complete health history of the client obtained, reactions tested, urinalysis and blood examination made, and a careful series of tests and observations upon the client after violent exercise recorded as guides to future work in the gymnasium? Very rarely except in the big universities, and there the material is composed of boys or young men, with few or no middle-aged or elderly men in the problem."

The Brooklyn Eagle and Mr. Rice are rendering a fine and far-reaching service by such intelligent consideration of an important health subject. The practice of medi-

cine under the elastic title of Physical Education is just now the most widely promulgated cult. Like others, it is destined to be shortlived, and the shorter, the more lives spared. There is a legitimate field for physical education, but it is a comparatively narrow one and properly includes neither the practice of medicine on the one hand, nor the promotion of glorified sports and play on the other.

"Health Specialists" as "Go-Betweens"—There are interesting connections between some of the alleged health, beauty, dietetic, home economics, and similar columns and the freak advertising pages of some of the same publications. If you are interested in knowing about these connections, write and ask some of these alleged experts where and how to secure the things and the services they recommend. You are already more blasé and more completely disillusioned than most people ever get to be if you don't get some "kicks" out of some of your answers. Try the "radium products" promoting group; any of the "special" food or other group promotors and see what you get.

Rockefeller's Five Rules of Health—He follows as nearly as possible these health rules prescribed by his physician:

1. Don't worry.
2. Don't acquire overweight.
3. Drink three quarts of water every day.
4. Exercise.
5. Sleep in fresh air.

What Will We Do If We Should Get it?—William H. Welch, in an interview on his 75th birthday, is widely quoted as saying that "Heredity is a prime factor in determining the age to which a man should naturally live. There is reason to suppose that the span of life is inherited by definite laws."

Even the certain number of years that science can add to the human life, provided the individual works hard enough and constantly enough, brings added problems for society to solve, and, as Doctor Welch says, "longer life implies a certain measure of prosperity and of thrift. It also implies a higher popular intelligence."

About Birth Control—George Bernard Shaw says, according to the New York Times: "If people regard reproduction as an obscene subject, or a funny subject (and they are usually the same people), there is nothing more to be said: nothing remains but to live them down, and to be particularly careful meanwhile not to waste time, life and money in appeals to the law, which is always fifty years out of date. . . .

"The shock I received at about 6 years of age, when, without any warning, I went into our drawing-room and saw a woman without a crinoline, probably produced a complex which psychoanalysts may be able to trace in my works to this day."

Havelock Ellis philosophizes thus: "'Birth Control,' indeed, and its substitutes—especially the latter—have been in active operation ever since birth began to take place on the earth, and even earlier, from the commencement of animal life. That is why it is possible to look at this question as one having an evolutionary meaning. . . .

"A single oyster, if all its progeny survived, would speedily accumulate, it is estimated, a heap of shells eight times the size of the world. Even a pair of elephants, the slowest of all animals to breed, would in much less than a thousand years produce 90,000,000 elephants. . . .

"The methods by which population is consciously or automatically controlled, and increase limited, are numerous. They fall into two groups, the first acting before conception, by decreasing fertility, and the second after conception, and indeed throughout life by increasing elimination."

Dr. Corrado Gini—"By means of special care and treatment, the weak and degenerate are, among modern civilized nations, saved from the selective action of nature and placed in a position to live and multiply."

Edward M. East—"Widespread rationalization of parentage will aid greatly in cutting down maternal and infant mortality, will effect a reduction of congenital defectives, and will lower the frequency of many diseases."

STIMULANTS, DEPRESSANTS, HUMOR

WHAT THE EDITOR HEARS ABOUT THE HISTORICAL NUMBER (MAY) OF CALIFORNIA AND WESTERN MEDICINE

Extracts from Letters and Other Messages

"It had to be good to stand out among a long series of excellent issues."—E. N. Ewer, President C. M. A.

"Better than I expected, and that is saying much."—John H. Graves.

"A splendid idea well carried out."—John Gallwey.

"A finished example of highly pleasing and effective team work between editors and contributors."—James W. Ward.

"Not only our editor but our contributors are getting better all the time."—C. D. McGettigan.

"It does not contain enough about medicine." —— M. D.

"It, as usual, promotes your friends." —— M. D.

"I must take a minute of your time to congratulate you upon the excellent historical number of California and Western Medicine, May, 1925. In a great many ways our State Journal right now is unexcelled, thanks to your vigorous and wonderful management."—Frank Hinman.

Annals of Medical History

New York City, May 14.

"May we not congratulate you on the Historical Number of California and Western Medicine, which has greatly interested us and which we are sending to the editor for possible abstracting in the Annals of Medical History?

We wish that you would send us two extra copies of this number that we may send to reviewers.

We note that you have other articles which were received too late for publication in this number. If they are to be published later, will you kindly send us marked copies of the numbers containing them?

We want to say that the Annals of Medical History will be glad to co-operate with you at all times in any medical history work. If we can help you, in the way of loaning cuts, etc., we shall be only too glad to do so."—Annals of Medical History, Paul B. Hoeber, Inc., publishers.

"You are to be greatly commended and congratulated for the manner in which you conduct our Association Journal, the type of papers presented, and greatest of all, the personal prefatory note given to many papers and the editorials. The latter always have my first attention with each new issue.

The Historical Number is excellent. It should be repeated. I hope you will continue for many years as our editor."—J. H. Woolsey.

"May I add to the numerous comments you must have already received, my very great appreciation of the Historical Number of California and Western Medicine? It is certainly a delightfully written, and an interesting and instructive compilation of fascinating articles, worthy of real litterateurs; and is particularly pleasing to me, for I am of a pioneer family and was born in San Francisco in 1861. I am familiar with many of the names and knew not a few of the splendid medical pioneers mentioned by Dr. Lyman.

One might easily get dangerously near exorbitant praise of Dr. Lyman's exceptionally fine handling of his subject, and the work of the other distinguished gentlemen who have lent so much to the success of the May issue, which should be perused by every Californian who truly loves his profession and his state."—Donald MacC. Gedge.

"Most hearty congratulations for the May number of California and Western Medicine. A most interesting and valuable addition to the library of any California physician."—Joseph Catton.

"I found the article on the early medical history of California intensely interesting and instructive. I never before realized what important roles physicians from the southern states played in the early California development. I am sure it will prove of equal interest to some of my southern doctor friends to whom I wish to send a copy of the Historical Number.

Please mail me a copy, for which I enclose 50 cents (stamps). Congratulations on the success of this interesting number."—Lindsay Peters.

"Permit me to congratulate you upon a most splendid production.

The illuminating and scholarly special article of Dr. George D. Lyman would grace the columns of any medical journal in the world. I suppose there were compelling reasons for omitting the bibliography of this paper, but I cannot refrain from expressing a regret that it did not also appear.

Concerning historical material in future issues of our Journal, my opinion is that a policy of collecting short authentic biographies of California medical men should be persistently followed by our state Journal, and from time to time the material so gathered should be edited and published.

I believe that our State Association, so far as the pages of its Journal are concerned, should allow the name of no practitioner of this state to go into complete oblivion. As the years roll by, the indices of our state Journal should reveal at least some little biographical record of every medical man who ever, for any considerable length of time, practiced his profession in California."—C. F. Griffin.

Medical Economics and Public Health

Veterans' Bureau Introduces an Innovation—In order to carry out the work of regional and hospital standardization of clinical and administrative service in the field, General Hines, director of the Veterans' Bureau, has just assigned four medical supervisors to a tour of field duty, with stations at New York, New Orleans, Chicago, and San Francisco.

To facilitate the handling of medical problems, it is the plan of the director to alternate field and central office service for staff physicians, so that they may become thoroughly familiar with all phases of medical administration both in the field and in central office, and also in order that the medical service may be completely standardized and uniform throughout. This plan was strongly endorsed at the last meeting of the Medical Council of the Bureau in February.

Dr. George O. Skinner, until recently acting manager of the District of Columbia regional office of the Bureau, will be stationed in San Francisco, his territory comprising the states of Montana, Wyoming, Colorado, New Mexico, Utah, Arizona, Nevada, California, Oregon, Idaho, and Washington.

It is a mystery why lay organizations which promote public health persist in ignoring the practicing physicians of their communities. A great criticism of public health nursing is, that the nurses diagnose and treat cases of sickness. While it is true that the cases which most nurses diagnose and treat are mild and are those which a physician does not usually care to visit, yet who shall draw the line?—Editorial, New York State Journal of Medicine.

The "Middle Man" in Medicine in Action—"There may be a few Indiana doctors," says the Journal Indiana Medical Association editorially, "who are connected with health institutes and who make health examinations of persons who have applied to the institute for such service and the reports of which are passed on to the institute for analysis before results of the examination are reported to the patient who pays handsomely for the advice. Just why any physician should consent to be a go-between is hard to explain, but the worst feature of the business is that the patient is being imposed upon, and the doctor who makes the examination is contributing to the success of a commercial enterprise that does not deserve recognition at the hands of ethical medical men. Periodical health examinations are becoming justly popular, but if they are going to fulfill their purpose they must be controlled by the medical profession, and any suggestions or advice given the patient should come from the physician making the examination and not in a round-about way through a commercial agency."

Note the Italics—An Eastern state now has a law which, according to official publications, "authorizes *boards of education* and school trustees to provide transportation; home teaching; special classes or special schools; scholarships in non-residence schools; tuition and maintenance in elementary, secondary, higher, special and technical schools and, on recommendation of the State Department of Health, *surgical, medical* or *therapeutic treatment, hospital care,* braces, and other appliances for physically handicapped children."

And yet some people still claim that public school systems are not even interested in the practice of medicine.

How Can a Christian Science Healer Consistently Sign a Certificate of Illness—In answer to this question, the chairman of the Christian Science Committee on Publication answers in part (Colorado Medicine):

"Christian Science naturally and consistently deduces that whatever does not speak of the goodness and harmony of God is but an expression of erring human sense. Sickness is very real to the human sense, but no one can reasonably claim that sickness is eternal and a part of the absolute reality of being in God's sight, for if it were we could never be rid of sickness. From this it will be seen that the therapy of Christian Science does not consist of, nor depend upon a negative premise, but rather does it operate from the affirmative spiritual facts about God and His creation. Thus Christian Scientists obey Jesus' counsel to 'render unto Caesar the things that are Caesar's by signing certificates of illness and also 'render unto God the things that are God's' by endeavoring in their prayer or treatment to 'know the truth,' which Christ Jesus said would make men free."

To which the editor of Colorado Medicine adds:

"*Reply*—Despite the foregoing explanation, we remain a little hazy concerning the mechanism of Christian Science.

"A man cuts his knee and his trousers. He admits the cut on his clothing, but not in his flesh. A woman has a wart on her nose. She denies the existence of the wart, but acknowledges the reality of the nose.

"Here is a form of differential nihilism in which the credulous mind denies or affirms the existence of things according to caprice.

"We prefer the more critical analysis of the bard:

> "There was a faith healer of Deal
> Who said, 'Although pain isn't real,
> If I sit on a pin,
> And it punctures my skin,
> I dislike what I fancy I feel.'"

Many Doctors Might Save Money by Reading This—No medical man thoroughly appreciates the hazards of his profession until he has been sued. Your counsel has observed the psychology of countless doctors who have been forced for days at a time to drop their practice and to hear themselves presented in court as the villain of the piece, watching with chagrin, amazement and concern the unfolding of their alleged shortcomings. The possession of insurance, under such circumstances, in addition to the knowledge that their rights will be safeguarded in court, is a source of assurance, confidence and consolation which only those who have been sued fully understand and appreciate. . . .

The question fairly arises for all doctors, both those with years of experience and those who are just embarking upon their professional career: Is it safe to practice medicine without being insured?—Attorney Whiteside, New York State Journal of Medicine.

Protecting the Health of San Franciscans—The new budget of the official San Francisco Health Department shows that one out of every 500 citizens of the county is an officer or employe of the department charged with protecting us against dangers to health. The cost of this service is some $3.50 a year per person. Assuming that the work is well done, and we are not intimating otherwise, the cost is a reasonable one. Few citizens take the trouble to understand the fact that this is only one of the several official government agencies with other hundreds of employes also largely engaged in keeping us from getting sick. Nor do most of us connect the activities and expenses of OFFICIAL health-protecting agencies with the vastly more numerous persons engaged in and the vastly greater sums of money being spent in the same service by VOLUNTARY health organizations and individuals who are engaged privately in health work for a livelihood. The group of voluntary health betterment organizations which some of the leaders claim to constitute the *"unofficial government"* in places expend more money and employ more helpers than does the *"official government"* board.

The group of individuals and organizations who are engaged in keeping San Franciscans well and getting us well for a livelihood includes physicians (1 to 450 of population), nurses (1 to 1000 of population), technical and clerical help (1 to 500 of population), and several other classes not here enumerated. It may be that the time of more than 10 per cent of our population is necessary to protect the health of the 100 per cent, but one of these days it is going to become *very* difficult to explain why so many people employed by so many different groups, official and unofficial, are being paid to do pre-

cisely the same things. What has been designated as "*charity in business*" and "*business in charity*" movements are so rapidly assuming the same sort of "refrigerated" lines of development that it is becoming difficult to distinguish between them. However, our official health authorities should have their money.

The A. M. A. List of Approved Hospitals—The American Medical Association, through its Council on Medical Education and Hospitals, which handles the hospital work for the association, has issued its 1925 revised list of hospitals approved for internships. The list is published in the Journal of the American Medical Association for March 28. It will also appear in the ninth edition of the American Medical Directory, besides being in separate pamphlet form. The list names 524 hospitals that are in position to furnish general internships, such as satisfy the medical colleges and state boards, as well as meet the almost universal demand of medical graduates for at least a year's general hospital experience, practice or specialization.

There were reported 5059 interns, of whom 3825 are in the 524 approved hospitals, and 1234 interns in 2696 non-approved hospitals. This total of 5059 interns compares favorably with the 3669 interns reported in the census of one year ago, the increase being 1390 or 37.9 per cent. In fact, there are 156 more interns now in approved hospitals than there were in all hospitals two years ago.

When the hospitals began to feel the shortage of interns about a decade ago, they quite naturally resorted to pecuniary appeals and offered salaries, usually ranging from $25 to $100 per month and maintenance. Now the appeal must be made on the basis of educational opportunities offered rather than financial remuneration. There are still a number of hospitals that pay their interns, and there can be no objection to giving interns some financial help, but hospitals which secure the best interns and most easily are those whose staffs are known to furnish the best educational opportunities, salary or no salary. The Council on Medical Education and Hospitals also publishes a list of the hospitals that provide approved residences in specialties for those who have already had a general internship or experience.

By furnishing these lists the council serves not only those who are seeking an internship or residency; it also contributes much to the good of the profession and the public by encouraging a broad general foundation, both for general practice and for specialization.

Did You Receive One?—Some self-respecting physicians are receiving letters from another New York doctor who wants to add California to his list of supporters, inviting them to "practice my method" of treating errors of refraction without glasses. The letters are signed ——, M. D.

Commending State Medicine—"The hospital policy of the state (Colorado) is to be especially commended," says George E. Vincent (Colorado Medicine). "Colorado aligns herself with other states, notably Michigan and Iowa, which assemble in a specialized university-controlled hospital needy sick from the entire commonwealth. A budget made up of legislative appropriations, county funds and patients' fees supports the institutions which at the same time provide excellent medical and surgical care and favorable facilities for education. . . . There is much cynicism abroad about the popular understanding and appreciation of science. The willingness of a few legislatures to vote on evolution, the gullibility of whole populations with respect to quack remedies and fraudulent stocks, the too ready acceptance of campaign sophistries are cited as evidences that the people are uncritical and powerless to protect themselves against propaganda.

. . . "If the university graduates—lawyers, teachers, successful business men, clergymen—if women of prominence in social and professional life, in clubs and philanthropy, accept uncritically 'Sunday-supplement science,' unverified testimony about 'cures,' blatantly advertised remedies, most of which at best are useless, and put themselves in the hands of doctors of dubious standing or of miscellaneous healers, what hope is there of creating a congenial environment for true science and its devotees?

. . . "There are experts and 'experts.' The popular distrust of experts is significant of several things. In a democratic society, one who professes to know more than the average man is naturally resented and disliked.

. . . "Human personality is complex; motives are mixed. All good qualities and all bad do not come in neatly separated bundles. They are variously assorted. Judgment must try to determine the predominant and guiding purpose of a given personality."

Chief Surgeon Morrison of the Atchison, Topeka & Santa Fe Railway Company, announces the following appointments, effective April 1: A. Schloss, district surgeon; Alson R. Kilgore, local surgeon; E. S. Kilgore, Wallace I. Terry, Gilbert M. Barrett, consultants. The physicians and surgeons named above all have headquarters at San Francisco. Dr. Schloss, newly appointed district surgeon, has been attached to the staff of the Medical Department of the Santa Fe for the past twenty years. The other appointees are well-known physicians, surgeons, and specialists.

The Physiological Treatment of Hay-Fever—It is now widely known that hay-fever is due to the hypersensibility of the patient toward one or more foreign proteins, generally those of the pollens of neglected and useless weeds. Therefore, this fact must be kept in mind in the treatment of this disease. The pestiferous pollens are usually present in all parts of the United States between June 1 and September 1. They are present in the atmosphere, being wind-blown, the patient inhaling them into the nose. The pollens adhere to the sensitive and moist mucous membranes, and if they are allowed to remain and penetrate the surface, soon set up an irritation and inflammatory condition of the terminal nerve filaments which quickly spreads widely through the air passages.

In order to prevent the development and liberation of the poisonous proteins of the pollens, many physicians prescribe irrigation of the nasal channel from one to several times a day, thus washing them out as fast as they accumulate.

This cleansing process is easily and comfortably accomplished by the Nichol's nasal syphon, about which further information will be found monthly in our advertising pages, which suggests itself as a safe and sure device, owing to its unique suction action. In fact, whatever treatment is prescribed, the device will prove an additional aid, inasmuch as it dissolves and draws out the pollen carrying secretions by irrigation.

After each irrigation, it is recommended that a bland oil should be used with an atomizer. This acts as a prophylactic, as it covers the membranes with an oil coating

which prevents the pollens from adhering to them and starting the irritation.

Medical Profession Found Constant in Recognizing Merit—"Some of the older pharmaceutical houses tell us," say the Deschell Laboratories, whose advertising is found in CALIFORNIA AND WESTERN MEDICINE each month, "that the medical profession are fickle; that they will prescribe an article for a while and then leave it to take up something else.

We have investigated this very carefully and have come to the conclusion that the medical profession are very constant, recognizing merit wherever it may be; use a good article over long periods of time, and stop using it only when something better is available.

The houses that are abandoning the medical profession and advertising their products to the public (some of them under the guise of household remedies, all of them, however, tending to encourage self-medication), are the ones that state the medical profession are fickle.

We find that where quality is maintained; where strict ethical merchandising methods are followed, the profession is loyal. But where unscrupulous houses put out a good article at first, then decrease the quality and start advertising to the public, they cannot expect to carry water on both shoulders and keep the loyalty and support of the medical profession.

We take this instance to pledge our loyalty to the medical profession in the manner of our merchandising and in the constant effort to preserve the high quality of our product.

Ampoule Solutions Daily Growing in Popularity—The ampoules that are particularly to be recommended are made of imported glass, glass containing no soluble alkali that might have an effect upon the medicament. The ampoules, after being filled, are closed hermetically under a gas flame; in other words, the glass at the neck is melted and fused, and the container is thus made air-tight and water-tight. In addition to this protection, it is necessary in some cases to protect the solution from the effect of light, and the ampoules are, therefore, put up in cardboard cartons which exclude the light.

All of which goes to show that conveniences are not gratuitous, but must be paid for by either the manufacturer or the user. In this case the manufacturer pays the major part of the price in the care required for assaying, sterilizing and encasing the medicinal solutions; but the user is supposed to keep the ampoules in their respective packages, and not let them lie around loose, until they are needed. In some cases, too, it is quite important that the date stamped on the package be consulted, for the ampouled solutions are not all indefinitely stable. This reasonable care cannot be considered a high price to pay for the convenience of having at hand a sterilized solution in individual doses for subcutaneous, intramuscular, or intravenous administration.

Some of the merits of this class of products are tersely set forth in the advertisement on "Ampoules," by Parke, Davis & Co., which appeared in the April issue of CALIFORNIA AND WESTERN MEDICINE.

What Would Similar Tests Show for San Francisco and Los Angeles?—"The air breathed in downtown Chicago contains eight times as much dust and twenty times as many bacteria as air in the suburbs. These facts are the result of elaborate health department tests."

"The Investment Banker," writes Mr. R. B. F. Randolph, vice-president Anglo London Paris Company of San Francisco, "finds, in his endeavor to serve the community, that the physician and surgeon is probably the hardest person to get at for the purpose of talking investments, and yet practically the greatest part of his daily work hinges on appointments. It is, of course, one of these peculiar situations, and one which we all appreciate, that the professional man constantly has his mind on professional matters, and rarely has time for his own personal business affairs; accordingly, these must necessarily be neglected to an extent.

This situation is an unfortunate one, yet, nevertheless, seems to be true in many instances, and the accumulation of surplus funds should, therefore, be invested under the advice of investment specialists, as it is quite possible that the investor neither has the time to acquaint himself with prevailing market conditions, nor perhaps has made sufficient study of the security market to enable him to make safe and profitable investments, and it is just possible that those securities already held should be reviewed and analyzed and suggestions made, where necessary, as to reinvestment.

No doubt some may feel that the representatives of various investment companies have perhaps been overpersistent in their endeavors to make appointments to discuss investments, but a short time used in this manner may be the means of a considerable saving, insofar as present holdings are concerned, or a suggestion given for the employment of idle or surplus funds. The officers and representatives of the Anglo London Paris Company are at all times available for consultation in this respect, either at their office or at yours, and will be glad to make suggestions as to sound investments and also through the recent establishment of an analysis division, properly analyze present holdings and advise impartially as to reinvestment when necessary. Their announcement is found in the advertising pages of CALIFORNIA AND WESTERN MEDICINE every month.

Intestinal Parasites Among Filipino Food Handlers—Many of the Filipinos that come to the United States find employment in the handling of food supplies. In the public institution surveyed by Harry A. Wyckoff and William O. French, San Francisco (Journal A. M. A.), some of them are employed as waiters, as bus boys, and in the kitchen. Out of thirty-four cases examined, twenty-eight were found positive for parasites. Twenty-two of these positive patients harbored either a double or triple infestation. The parasites found were hookworm, in twenty-one cases; trichuris, sixteen cases; ascaris, two cases; fasciolopsis and hymenolepis in one case each, and protozoa in twelve cases. Compared with the incidence of intestinal protozoa in medical patients in the Stanford Hospital the percentage of infested Filipinos is greatly in excess. The number of positive findings among hospital and clinical patients was found to be 22 per cent in 7000 patients examined. Only 4 per cent harbored helminths. Among the Filipinos, 72.4 per cent were infested with hookworm and 42.9 per cent with protozoa. All the hookworm patients were given routine treatment with carbon tetrachlorid. Nineteen patients were treated for hookworm. Adult worms were removed in fourteen cases. Adult ascarids were found in two cases, and the ova in three cases. Trichuris ova were recovered in six cases. hymenolepis and fasciolopsis ova in one case each. Protozoa alone were found in four cases. The number of hookworms recovered were small, although one case yielded sixty-seven worms. Ascarids were recovered by this treatment in two out of three patients infested. Fourteen patients treated with carbon tetrachlorid were reexamined two months later. No ova of either hookworm or ascaris was found. The carbon tetrachlorid did not affect any of the other worms or protozoa. The only toxic symptoms noted as a result of this treatment were nausea and vomiting in six patients, and dizziness with headache in two patients. All, however, except two, could be discharged the next morning, although some were unable to carry on their duties the following day. Carbon tetrachlorid did not always act as a cathartic. In many cases there were no evacuations or only one evacuation in the eighteen hours following administration. In the majority of cases in which there was only one stool, or in which an enema was needed, the patients were nauseated or vomited.

"The tendency to centralize government at Washington," Senator Borah recently declared, "is undermining the confidence and destroying the capacity of the citizen to assume and meet the duties and obligations of citizenship. There is not a practice, custom or habit but must soon be censored from Washington. There is not in all the relationship of parent and child, of family and home, anything sufficiently private and sacred to exempt it from the furtive eye of the special agent."

California Medical Association

EDWARD N. EWER, M. D., Oakland.....President
W. T. McARTHUR, M. D.....President-Elect
EMMA W. POPE, M. D., San Francisco.....
.....Secretary and Associate Editor for California

ALAMEDA COUNTY

Alameda County News (reported by P. S. Nusbaumer, secretary Alameda County Medical Association)—At the regular monthly meeting of the Association, held April 20, 1925, F. J. Carlson reported a case, dislocation of the shoulder, with exhibition of the patient, and Lindsay Peters reported results of insulin treatment in a case of diabetes mellitus complicated by pregnancy and funnel pelvis. The regular program was a symposium on cancer by members of the Fabiola Hospital staff, H. D. Bell, chairman. The first paper was by Daniel Crosby, entitled "Solid Cancer of the Ovary." Crosby discussed the pathology and various classifications of ovarian cancers, following which he reported a case in which a large solid carcinoma of the ovary was discovered during an abdominal section for other causes. This case was complicated by a diffuse adeno-carcinoma of the body of the uterus. The affected ovary, tube and uterus were removed. The patient was treated with radium, and has no evidence of recurrence three years and six months after operation. Gertrude Moore discussed this paper from the pathological standpoint. In his discussion of the paper, E. H. Barbera also reported a case of solid carcinoma of the ovary. Dr. Ewer's subject was "Cancer of the Uterus." Ewer pointed out the lines of extension of the different varieties of cancer of the uterus and their bearing upon diagnosis of operability. In connection with operability, the value of the Ruge-Phillip test to determine virulence of streptococci in the degenerating mass was pointed out. Streptococcic peritonitis, the cause of most operative deaths, follows when virulent strains of the organisms are present, in a very large percentage of cases. The technique of radium treatment in several Eastern clinics was described. The discussion of the paper was opened by L. P. Adams. In his paper on "Cancer of the Stomach," R. T. Sutherland emphasized the need for earlier diagnosis and treatment of gastric cancer. Because of the very insidious onset in most cases, greater attention should be paid to a careful history of so-called dyspepsia in patients over 30 years of age, together with scrutinizing examinations of all such patients. He stated that in many of these patients the earliest symptoms may be either loss of weight, anorexia, weakness, or pallor. He advises that frequent gastric examinations, together with fluoroscopic and roentgen-ray examinations, should be employed in all suspicious cases, and if doubt of cancer exists, early exploratory operations are justifiable. This paper was discussed by Guy H. Liliencrantz and C. E. Peters. At the conclusion of the scientific program the business matters were taken up; new members introduced by the president, announcements made; after adjournment, refreshments and a social hour.

Providence Hospital Staff—The annual banquet of the Providence Hospital staff was held at the Hotel Oakland, May 7, with some sixty-five members attending. O. D. Hamlin presided. H. B. Mehrmann extended greetings. J. Wilson Shiels was the speaker of the evening. Among other things, he emphasized the importance of the medical man joining the United States Medical Reserve Corps. There was good music, both vocal and instrumental. All agreed that it was an evening long to be remembered.

Fabiola Hospital—At the first annual reunion of the graduate nurses of Fabiola Hospital, held recently at the nurses' home of the Fabiola Hospital, 200 nurses were present and were welcomed by Mrs. J. P. H. Dunn, president of the Fabiola Hospital Association. The celebration opened with a supper and entertainment given in the auditorium of the home. The nurses came from all parts of the state for the occasion. Many of the first graduates of the Fabiola Hospital Training School traced the progress of the institution since its foundation thirty-seven years ago, when their Alma Mater was the first established in Oakland. There are now 500 graduate nurses, many of whom are still in active service.

A notable feature of the banquet program was a parade of the different uniforms, which were worn by the nurses during their training in the earliest days of the school, in which every branch of nursing is taught.

On May 1 a luncheon was given in Mosswood Park by the alumnae for all the graduates, and in the evening the graduation exercises were held in the auditorium of the nurses' home, when fourteen young women received their diplomas.

CONTRA COSTA COUNTY

Contra Costa County Society (reported by L. St. John Hely, secretary)—The regular monthly meeting was held Saturday evening, April 25, at the Hotel Los Medanos at Pittsburg. The society were the hosts of Drs. Gregory and Blackshaw. A dainty lunch was served the members in the main dining-room of the hotel.

Dr. S. H. Buteau read a paper on "Acute Abdomen." The subject was discussed at length by nearly all the members. Never in the history of the society was a subject so important or interesting brought before the members. Dr. Buteau brought out every possible complication and emergency that may arise in meeting with such a case, and what he did not bring out the members did. In all, we consider that we spent a most profitable evening.

One new member was enrolled on the list, in the name of David C. Wise of Pittsburg. We think he is going to be a valuable addition to the roll.

The members, by unanimous vote, ordered the secretary to forward a vote of thanks and appreciation to the assistant district attorney, congratulating him on his successful prosecution of Cosper in the Dietrich case.

The following members and visitors were present: S. H. Marks, Pittsburg; L. A. Clary, San Francisco; G. M. Bumgarner, Richmond; E. C. Love, Danville; H. L. Carpenter, Richmond; J. Edward Clark, Walnut Creek; George McKenzie, Concord; W. C. Robins, Brentwood; Denninger-Keser, Richmond; L. St. John Hely, Richmond; H. W. Stirewalt, Walnut Creek; John Beard, Martinez; H. L. Gregory, Pittsburg; D. C. Wise, Pittsburg; C. L. Abbott, Richmond; S. H. Buteau, Oakland; Mrs. E. C. Love; Mrs. John Beard.

FRESNO COUNTY

Fresno County Medical Society (reported by T. Floyd Bell, secretary)—The monthly luncheon of the Fresno County Medical Society was held April 18 at the Hotel Fresno. There were twenty-three members present, as follows: Members—Drs. Aller, Anderson, Barr, Bell, Binkley, Butin, Cross, Dahlgren, Dau, James, Montgomery, Mitchell, Morgan, Madden, Nider, Newbecker, Pettis, Pomery, Pisor, Schottstaedt, Sciaroni, and Sheldon. Miss Taylor, R. N., of Madera was a guest of the society.

In the matter of examining those pre-school children who could not come to any doctor's office, Madden moved, Mitchell seconded, that a volunteer committee of doctors be appointed to examine such children at convenient places to be designated later. Carried. P. S. Barrett was named chairman.

Pettis moved, James seconded, that a committee of two be appointed to make a suitable placard for offices announcing the Saturday afternoon closing, and also have same published in the local press. Pettis and Mitchell were appointed.

R. W. Binkley, a member of this society, was the speaker, his subject being "The Variation of Medical Fees According to the Ability of the Patient to Pay." He first talked about the financial status of doctors, and said that, as a class, they were failures as business men. The doctor is not trained in the business part of his profession. The "old doctor" did not send out monthly statements and try to collect money justly due him. Consequently, he collected barely enough to live on, and his children many times actually had to work to help support the family. The doctor should collect money for his services

just as any other business man does when he sells his commodity, for the doctor's services are his commodity. Insurance statistics show that more doctors die leaving nothing but life insurance than any other profession, not excepting teachers and preachers.

Up to a few years ago medical economics had no place in medical meetings. Doctors were interested in presenting new problems or the solution of such problems, and the advance made in the science of medicine. But finally someone had the courage to bring up the "Business Methods of Doctors." They called in efficiency experts, not doctors, to consider this matter and make a report. These experts found that over 50 per cent of the widows of doctors are working for the necessities of life, and that the age of doctors is 45. They reported also that doctors give seven times as much to charity as any other man of similar income, and that they donated not only money, but service. What other business man would do this? These lax business methods would bankrupt any other business in less than a year. They drew up a fee schedule, which is much higher than that used today, based on the ability of the patient to pay. They showed that the responsibility and risk of caring for the rich was much greater than for the poor. Therefore, they advised that a man with moderate income should pay a moderate fee, a poor man none or a small fee, and a rich man a large fee.

Dr. Binkley showed a curve of the doctor's income at various ages. This showed the peak of the greatest income at the age of 45. After this age it dropper rapidly to 55. The necessity of spending about ten years at the beginning on medical training and the inability to keep up to the standard one's earning capacity at the end of life makes the earning time of the doctor very short. He must make his money during this short period or suffer financially. His business is unlike the ordinary business. When he builds it up he must be there to run it or else it is worthless.

The regular meeting of the Board of Governors of the Fresno County Medical Society was held May 4, in Dr. Anderson's office.

Couey, Cross, Miller, Trowbridge, Anderson, and Bell were present.

Bills were audited and ordered paid.

Miller moved, Trowbridge seconded, that the secretary deposit as much money as he thinks best in the savings department of the United Bank and Trust Company. Carried.

Cross moved, Trowbridge seconded, that the placards for Saturday afternoon closing be printed and distributed, 120 in number.

Anderson reported in regard to the recent visit here of a representative from the State Board of Medical Examiners, who came to investigate the alleged violation of the Medical Practice Act of the nurses of the Sun-Maid Welfare League. He believed the matter to be settled satisfactorily.

Cross moved, Trowbridge seconded, that the resolution of April 6, 1925, in re investigation of admission to the General Hospital, be amended to include the City Emergency Hospital, and that the number of the committee be increased to five. Carried.

The secretary was instructed to write the American Legion Auxiliary Unit No. 4 that we sanction the "Better Baby Show," but do not advise it.

Miller moved, Trowbridge seconded, that it be considered unethical for any member of this society to deliver lectures at stores or similar places on professional topics. Carried.

The secretary was instructed to write the Fireman's Benefit Fund that the board felt that the amount of fee is entirely inadequate to cover services required.

The regular meeting of the Fresno County Medical Society was held May 5, at the Hotel Fresno.

There were twenty-five members and thirty-one visitors present.

Members—Drs. Aller, Anderson, Bell, Couey, Cross, H. O. Collins, Dau, Barr, Hare, Konigmacher, Lamkin, Larson, Manson, Mathewson, Montgomery, Mitchell, Morgan, Milholland, Madden, Nider, Newbecker, Pettis, Schottstaedt, Sciaroni, Thompson, and Willson.

Because of the large number of invited guests, the regular order of business was dispensed with.

The secretary was instructed to cast a ballot for Dr. J. M. Frawley, his application having been passed on favorably by the board of censors and the state secretary.

Cross presented the following resolution, to be sent to the State Board of Medical Examiners. On motion of Madden, seconded by Milholland, it was carried:

"We, the members of the Fresno County Medical Society, desire to enter a protest to your Honorable Members, in the matter of the employment of narcotic addicts by the State Board of Pharmacy to act as stool-pigeons.

"Recently one C. Bentley, who committed suicide in the jail located in Modesto, California, was used by the said Board of Pharmacy to visit the offices of physicians in this city. His method was to appeal to said physicians as a suffering human requiring relief from pain.

"We deplore the use of these unfortunates for such purpose, as it would appear to encourage them in their habit, as it is known that persons suffering from such habits cannot be trusted with drugs to which they have become a slave.

"We feel it unjust that the license of a practicing physician should be jeopardized who, in the kindness of his heart, is induced to prescribe, under misrepresentation, for such people.

"With the furnishing of narcotics to addicts for gain or the careless dispensing we have no patience, but to the unfair method of using these people to trap a physician during his busy hours when he may be caught off his guard, we consider unfair.

"If it does not come within your province to deal with this situation, will you kindly forward this communication to those who have jurisdiction?"

Cross moved, Morgan seconded, that the new constitution and by-laws, as presented at the last regular meeting, be adopted. Carried.

The meeting was conducted in celebration of "Cancer Week." To give publicity to this subject each member was asked to bring one or two laymen as guests. The speaker was Dr. Alson R. Kilgore of San Francisco, the representative of the American Society for the Control of Cancer. The first part of his talk was devoted to "Some Blue-Sky methods in Medicine," in which he discussed various quack cancer cures, such as arsenic paste, sera, coagulum, and diet. He emphasized the fact that all these methods of treatment are dangerous because they put off the day of proper treatment till it is too late to cure. This part of the program was especially for the lay people present. Kilgore then took up some newer aspects of the cancer problem, dealing mainly with breast cancer and pre-cancerous lesions in the breast. He illustrated this part of his talk by lantern slides.

There were several musical numbers by local artists, after which a buffet luncheon was served.

MARIN COUNTY

Marin County Medical Society (reported by J. H. Kuser, secretary)—On April 23, at the San Rafael Club, Samuel Hurwitz of San Francisco presented a paper before the Marin County Society. The following members were present: H. Hund, W. F. Jones, R. Furlong, L. Landrock, Charna Perry, U. W. Clark, J. H. Kuser.

Dr. Hurwitz's paper was followed by an interesting discussion. The business meeting was postponed until the next regular session.

Examination of pre-school children by the members of the Marin County Medical Society was undertaken and successfully carried out in the week from April 20 to 24.

ORANGE COUNTY

Orange County Medical Association (reported by D. R. Ball, secretary)—The regular monthly meeting was held the evening of March 3 at the Orange County Hospital. D. A. Harwood of Santa Ana read an interesting paper on "Ruptured Uterus Following Caesarean Section." The factors at the time of surgical delivery that make for subsequent rupture were discussed. Following this, a plan of procedure for the conduct of later pregnancies and labors was outlined. The doctor advocated the test of labor under supervision rather than the unqualified acceptance of the dictum "Once a Caesarean section, always a Caesarean section." The second paper of the evening was read by G. I. Sellor of Fullerton on

"The Ear and the General Practitioner." The reader discussed the conditions of the external and middle ear commonly met with and the treatment of these conditions. The business included the election of three new members: G. I. Sellon and F. H. Gobar of Fullerton, the former a transfer from Custer County, Nebraska, and J. D. Ball of Santa Ana.

The April meeting was held at the Orange County Hospital on the evening of the 7th. The society had as its guests District 16 of the California Nurses' Association, together with the other nursing organizations of the county. The address of the evening was given by Dr. Lela J. Beebe of the State Bureau of Child Hygiene. The speaker first outlined the great strides that have been made in recent years in the prolongation of human life, and mentioned new problems that this added longevity has brought up. She then proceeded to outline the work that her department is carrying on in this state. The work is divided into four main groups, and includes: First, improving the quality of prenatal care; second, maintenance of breast-feeding and where this is impossible, proper artificial feeding under medical supervision; third, spreading among the laity the knowledge of fundamental health habits; and fourth, the necessity of periodic health examinations. Dr. Beebe's talk provided a stimulus for all of us to renew our work in these large fields. A general discussion of public health problems followed, and the meeting was closed with an enjoyable "feed."

The Santa Ana Clinical Society has recently listened to two very interesting speakers. C. E. Phillips of Los Angeles discussed the subject of "Gall-Bladder Disease" at the March meeting. The speaker first made the point that gall-bladder disease is now accepted as a surgical disease, and then went on to discuss certain difficulties that arise in diagnosis, and finally discussed the operative procedure. V. R. Mason, also of Los Angeles, spoke on "Observations on Gastro-Intestinal Disease" at the April meeting. Subjects touched on by the speaker in an original way included gastric tetany, peptic ulcer, intestinal flagellates, and amebic dysentery. Both of these talks were valuable, in that they were not set papers, but rather observations taken from the large experiences of these men in their respective fields.

PLACER COUNTY

Placer County Medical Society (reported by Robert A. Peers, secretary)—The society held its regular May meeting in the reception-room of the Placer County Hospital, Saturday evening, May 9, President H. N. Miner presiding. There were present the following members and visitors: E. H. Bryan, C. E. Lewis, H. N. Miner, H. M. Kaner, J. A. Russell, F. L. Fanning, R. H. Eveleth, L. B. Barnes, R. A. Peers. Visitors: F. F. Gundrum, C. E. Von Geldern.

Dr. Bryan presented to the society a five weeks' old infant suffering from spina bifida. Gundrum addressed the society on the subject of the "Medical Aspects of Arteriosclerosis," going into detail as to the pathology, etiology, symptoms, prognosis and treatment of the various types, after which Von Geldern discussed "The Relation of High Blood Pressure to Industrial Medicine." Both addresses were discussed by all members present.

RIVERSIDE COUNTY

Riverside County Medical Society — (reported by T. A. Card, secretary)—The regular meeting of the Riverside County Medical Society was held in the Riverside Community Hospital on May 11.

It was decided that the June meeting would be an open social meeting in the form of an outdoor gathering at the Rainbow Angling Club, where the members and their families could enjoy themselves fishing and later have a trout dinner. This form of outdoor meeting has been carried on for the past five years, and has become an annual affair with our society. We are looking forward to a general good time.

The program of the May meeting was as follows:

Case Report: "Esophageal Stricture in an Infant"—Paul F. Thuresson, M. D., Riverside.

"What Do We Know About High Blood Pressure?"—W. W. Roblee, M. D., Riverside.

"Pneumonia in Children" — Joseph Robinson, M. D., Anaheim.

The meeting was well attended, and a free discussion was participated in by the members present.

SACRAMENTO COUNTY

Sacramento Society for Medical Improvement—(reported by Bert S. Thomas, secretary)—The April meeting was held at the Hotel Sacramento on the 20th. Forty-two members and fourteen visitors were in attendance. The latter included Dr. Peers from Colfax and Dr. Thoren from Weimar. A number of local clinical workers in tuberculosis augmented the number to hear the speaker of the evening, Dr. F. M. Pottenger of Monrovia. The minutes of the February meeting were read, and, after one correction in Dr. Schoff's remarks at that meeting, they were approved. There was no presentation of cases, and the meeting was immediately turned over to Doctor Pottenger, who spoke upon "The Classification of Symptoms of Important Internal Viscera." A brief synopsis of his subject follows:

"Pathologic anatomy has dominated medicine for the seventy-five years past; in fact, it has been considered the essence of medicine. The clinician, however, in his every-day practice, is not dealing so much with pathologic anatomy as pathologic physiology. Symptoms of diseases are manifested as disturbed function, and disturbed function does not ever occur until the normal physiologic equilibrium is upset.

"In order to understand symptoms, it is necessary to understand the normal physiologic control of the body. This control is a threefold mechanism, depending upon: (1) The cells, their physical state and ionic content; (2) the nervous system; and (3) the chemical substances which come in contact with the cells, hormones, oxygen, and all the products of secretion and excretion.

"Most symptoms of disease, aside from those of the voluntary nervous system, are expressed on the part of some of the important viscera, such as the nose, pharynx, larynx, heart, lungs, kidneys, bladder, and organs of the gastro-intestinal and genital tracts. While these organs may not be the seat of the disease, symptoms on the part of these viscera nevertheless appear.

"Therefore, it is necessary for us to understand the physiologic relationships which govern the action of these organs, and bind them to the structures which are the seat of the disease process. There are two great correlating systems of the body: The chemical, which is chiefly dependent upon products from the glands of internal secretions, and the nervous system. These two systems cause the body to act as a whole instead of as many individual organs. Through them a correlation and integration of action occurs which makes it impossible for any organ to act alone.

"While the nervous system, as a whole, must be understood in order to grasp physiologic body control, it is especially important that clinicians should understand the vegetative nervous system which supplies all smooth musculature of the body, the heart, and all glandular structures; in fact, presides over the function of all important viscera. The vegetative nervous system, with the products of the glands of internal secretion, furnishes the key to the understanding of most visceral symptoms, either organic or functional.

"Upon our knowledge of these vegetative systems, we may construct a logical etiologic classification of disease of the important internal viscera:

"(1) General or constitutional symptoms. These are the symptoms that are produced by toxins, anaphylactic bodies, whatever they may be, and all products of metabolism which find their way into the blood stream. They produce general disturbances by their action upon the nervous and endocrine systems, as well as upon the body cells themselves.

"(2) Reflex, produced by efferent impulses arising from the stimuli which result from the disease and which course centralward and meditate with efferent nerves and

cause altered function in other tissues either of the same, neighboring, or remote structures; and

"(3) Those produced by disease at the seat of the lesion.

"In this classification most symptoms of visceral disease may be reduced to three causes, and by understanding that the reactivity of different individuals toward the same stimulus varies, and that the reactivity of different neurons in the same individual also varies, one can understand a fact of first importance in clinical disease—the reason for the variability of symptoms.

"If the clinician understands the general widespread action of toxins, anaphylactic bodies, and other products of metabolism, and if he further knows the inervation of the organ which is the seat of the disease process, and the neurons which may meditate with the efferent nerves which carry the stimulus centralward from that organ, he then has a basis for intelligently interpreting most of the symptoms of disease. It is still necessary, however, that he should appreciate fully that disturbed physiologic equilibrium may result just as well from psychical as from physical stimuli."

Peers, Gundrum, Howard, Johnson, and Bramhall entered into the discussion of the paper. The margin of safety, as referring to the overlapping of nerve impulses, was particularly stressed, more so in relation to the breaking down of this margin of safety in protracted disease. This was applied to certain cases of industrial accidents, and probably well explains an actual condition that we are constantly dealing with traumatic neurosis. It also was pointed out, with special regard to these reflex tracts and symptoms, that approximately 36 per cent of the digestive symptoms first entered in a patient's complaint are not due to digestive organs at all.

In concluding the discussion, Pottenger remarked that after the margin of safety has been broken down, after the pathologic stimulus has been once started, i. e., after the synapse has been passed, from that time on this stimulus goes over more easily. This, therefore, applying to compensation cases, means that we are dealing with "sick" people in their protracted stages.

The application of L. H. Sanborn was voted upon and passed by unanimous vote of twenty-eight members. First reading of the applications of J. H. Wilson and Royal deR. Baronides were read.

The report of the April meeting of the board of directors included that of the program committee. The May meeting is to be addressed by Dr. Frank P. Brendel, whose subject will be "Fractures, Their Diagnosis and Treatment," supplemented by lantern slides of cases. An evening clinical meeting is planned for June. This is to be held at the Sacramento Community Hospital. At this time, Dr. Leo P. Bell will probably present a paper dealing with the "Pre-Operative and Surgical Treatment of Splenic Anemia."

A letter from the secretary of the State Society, informing us that the May number of CALIFORNIA AND WESTERN MEDICINE will be an historical number, devoted to the history of the California Medical Association, and of the men and women who were the outstanding pioneer physicians, was received. The board considered it quite fitting to ask Dr. W. A. Briggs to prepare this subject for the Journal.

The Committee on By-Laws was not prepared to report.

SAN DIEGO COUNTY

San Diego County Medical Society (reported by Robert Pollock)—At the April monthly dinner of the San Diego County Medical Society, held at the Cabrillo Cafe on April 11, Charles A. Kofoid, Ph. D., addressed the meeting on the subject of "Intestinal Parasites." Dr. Kofoid handled his subject in a masterly manner, profusely illustrating his statements with lantern slides, showing the variations in the various members of the ameba family and their cysts. While his discussion was mainly upon the ameba, which he considers the chief villain in the tragedy of intestinal invalidism, he also discussed somewhat in detail the various flagellates that are found in the human intestine.

For a paper largely devoid of clinical descriptive matter, and discussing the subject mainly from the purely scientific and academic standpoints, Kofoid's presentation was extremely interesting and held his audience spellbound throughout. Discussion was somewhat extensively participated in by J. C. Barrow and William H. Olds of Los Angeles, and Pollock and Rees of San Diego.

Quite a representative delegation from the local society is planning to attend the Yosemite Valley meeting of the state organization. It is unfortunate that this meeting and that of the American Medical Association should run together so closely, but at this season of the year, when conventions are the order of the day, it is difficult for all to program successfully without conflict.

SAN FRANCISCO COUNTY

Franklin Hospital Clinical Society (reported by Ewald H. Angerman, secretary)—The regular staff meeting was held at the hospital on Monday, March 30, at 8:30 p. m., Dr. Otto Westerfeld presiding.

The program of the evening consisted of clinical discussions from J. Wilson Shields' Medical Service at the Franklin Hospital: 1. Presentation of case of sprue. 2. Presentation of case of fifth nerve palsy, accompanied by temporary amnesia—question of encephalitis. 3. Presentation of case of mediastinal syphilis. 4. Presentation of case of cerebral aneurysm, with demonstration of pathological specimen.

Cases were discussed by Naffziger, Inman, Falconer, Werner, and Yoell.

St. Joseph's Drive Success—Gastro-Enterologic Advance Urged—The recent drive of St. Joseph's Hospital of San Francisco for $500,000 to reconstruct new fireproof units of the institution was notably successful. All elements of the community and many from afar aided in putting over the campaign—in fact, contributions are still coming in from the Sisters' appreciative friends, especially patients.

Dr. James A. Guilfoil addressed the staff on May 13 on "Advances in Gastro-Enterologic Diagnosis and Therapy," summarized as follows:

The diagnosis of gastro-intestinal disease is now a tribute to medicine. The best results are obtained because a routine examination is made that is efficient, but not too elaborate or costly. In chronic digestive disorders, a careful history is the most helpful thing, except the gross pathology disclosed by the x-ray. Periodicity of attacks suggests ulcer, chronic appendicitis or functional disorder rather than gall-bladder, for example. With a luetic history and indigestion for years, we have often cause and effect. Even a history of gonorrhea may indicate an intra-urethral chancre. Recurrent attacks of vomiting may mean migrane.

Physical examination should include throat, teeth, skin, lungs, heart, abdomen, rectum, reflexes, blood pressure, etc. An enlarged liver may be a clew to cardiac disease; irregular or sluggish pupils the key to gastric crisis of tabes. No examination is complete without a proctoscopic and sigmoidoscopic investigation. Frequently, a fissure at the base of a hemorrhoid, cryptitis, rectal cancer, or spastic sphincter ani, if treated, will relieve gastro-intestinal symptoms.

Laboratory tests enable us to make accurate diagnosis. Gastric analyses of fasting contents and after a standard meal are needed. Estimation of secretions and presence of mucus, pus, blood, bacteria, can be made only with them. Hyperacidity does not always give pylorospasm, and the latter may be simulated by achlorhydria associated with extra-gastric pathology, or even tuberculosis of lungs. Achylia may be only transitory or due to pernicious anemia, but it may be a sign of an early removable cancer. A single analysis is not always definite. Blood examinations may disclose the anemias, eosinophilia of parasites, and leucocytosis of focal infections. The urine reveals urologic pathology, producing reflex gastric or appendiceal symptoms. Stool study shows up occult blood, mucus, parasites, and fat digestions.

Roentgen-ray study is equaled by no other single method, many findings being obtained only by it, but all means must be used and conflicts studied. It requires, besides a proper technique, additional training in anatomy, physiology, and pathology. Many inferior radiograms are worthless. The best results are obtained by closest co-operation of all.

Ulcer is more accurately located by x-ray, but history

should also fit, especially with only slight deformity of bulb. Pylorospasm can be due to many lesions of abdomen, and hematemasis occurs in 5 per cent of cases of chronic appendicitis. Treatment of duodenal ulcer at the Southern Pacific Hospital, without retention, bleeding or persistent pain, is Lenhartz or Brown-Guilfoil diet, the latter having higher caloric value and avoiding loss of weight and working just as well, and bed rest. Any soft, bland diet, with frequent feedings of small amounts, is good. Routine alkalies are avoided, as patients get to depend on them for relief, instead of proper diet, which must be continued for six to twelve months. For retention of food for six hours, rest in bed and Lenhartz's diet are used. If no improvement of emptying time is noted after ten days, surgery is advised. Many retentions improve with this trial. Recurrent bleeding, persistent pain, and retention of food over six hours and perforation, call for surgery.

For gastric ulcer less conservatism is used, as the percentage of medical cures is less and there is danger of malignant change. Except in young adults, without bleeding and retention, resection with gastro-enterostomy is advised. Cancer is the great baffler, and early x-ray diagnosis is disappointing, especially at the fundus and the posterior wall. Patients' lack of appreciation of slight indigestion and physicians' procrastination are also causes of not making early diagnoses.

Ptosis may not interfere or may cause symptoms. Gastric polypus, diverticular processes of the stomach and duodenum are x-ray diagnoses, causing trouble rarely. Diverticulitis causes colicky pains, distention, bloating, and constipation, often followed by diarrhea after the attack. If in the sigmoid, there is desire for stool, with no result. Tenderness is felt over the lesion. In chronic diverticulitis, ulceration, adhesions, stenosis, hemorrhage, and perforation may occur and surgery is usual, but if lesions are buried in the pancreas, rest, bland diet and plenty of olive or petroleum oil are best.

Useless appendectomies are less frequent now, with x-ray study.

Multiple lesions are often demonstrated by surgeons. Appendectomy, when indicated, is done first if accompanied with uncomplicated ulcer in young adult, medical treatment being instituted. In chronic appendicitis and cholecystitis, both are operated. With cholecystitis and duodenal ulcer without gastric retention or bleeding, removal of gall-bladder has apparently caused cure of ulcer. With uncomplicated duodenal ulcer with other lesions, conservatism seems indicated and radical stomach surgery avoided if possible. "Nervous indigestion" generally indicates that a further study is needed for an organic basis.

L. B. Crow demonstrated radiograms of gastro-intestinal lesions. G. D. Schoonmaker discussed the differential diagnosis between digestive lesions and kidney-stones and ureteral stenosis. W. W. Washburn spoke of the surgical problems involved, especially in multiple lesions. Henry Kreutzmann exemplified nephritic, ureteral and duodenal plates, including diverticula. Harold Wright agreed that "nervous indigestion" generally had an organic basis, and that tabes caused visceral pain. Adolph Berg and Walter Smith stressed rectal examinations, the avoidance of multiple operations and appendiceal fluoroscopy. C. O. Southard mentioned patients cleared of nasal infection and eye-strain, with improvement of stomach symptoms.

Case histories were presented by R. F. Grant (influenzal pneumonia), William Quin (gangrene of leg, coronary atheroma and lobar pneumonia), and D. E. Stafford (tubercular peritonitis).

The program for June 10 follows: "Surgical First Aid Noted in the East," Edmund Butler, discussion opened by O. E. Ekland, and "Modern Treatment of Asthmatic Conditions," S. H. Hurwitz.

Southern Pacific General Hospital Staff Holds Clinical Meeting (reported by W. T. Cummins, secretary)—The regular monthly clinical meeting was held at the hospital, Huntington Hall, Wednesday, April 1, 1925, at 8:30 p. m. W. W. Washburn presented the topic, "Other Abdominal Surgical Conditions that Simulate Kidney Lesions," summarized as follows:

Many diagnostic points were emphasized in the consideration of perinephric abscess, enlarged gall-bladder, retroperitoneal growths, sarcoma of twelfth rib, splenic tumors, appendicitis, etc., in their differentiation from renal lesions. Retroperitoneal malignancies usually produce more intense pain and cachexia than do kidney tumors or perinephric effusions of blood or pus. The kidney is often displaced by retroperitoneal growths and intra-abdominal tumors, which may cause one to err in interpreting physical findings. An enlarged, freely movable gall-bladder may simulate a kidney. Acute unilateral hematogenous renal infection in the early stage may give no pathological urinary findings and may be confused with acute appendicitis. An illustrative case report was presented. Pathological findings in the urine in acute appendicitis may simulate a pyelitis or nephrolithiasis, especially when the appendix is adjacent to the kidney pelvis or ureter. A right-sided, acute pyelitis showing occlusion of the ureter with mucus and normal urinary findings may be mistaken for acute appendicitis. Careful history-taking, pre-operative investigation and urological studies should be carried out in doubtful cases. Hypernephroma may cause no urinary disturbance. Splenic tumors have a notched, sharp margin, and do not displace the colon anteriorly and laterally as do kidney tumors. Inflation of the colon or a roentgen picture, after a barium enema, aids in the differentiation. Case records and numerous lantern slides illustrated the subject.

Discussion—G. L. Eaton, with chart and roentgen pictures; W. I. Terry, L. B. Crowe, M. P. Burnham, P. K. Brown, O. E. Eklund, and F. A. Lowe.

St. Luke's Clinical Club—The regular meeting of St. Luke's Clinical Club was held Thursday, April 23. H. A. L. Ryfkogel presented the subject of "Splanchnic Anesthesia." This method of anesthesia is much more popular in the East than here. The speaker himself has had very good results with a modified Cappus method, using one-half per cent of novocaine instead of the 1 per cent recommended by Cappus. He had found 1 per cent dangerous. This method is especially good in old people, who cannot stand the ordinary form of anesthesia. It is absolutely devoid of shock. Splanchnic is the method of regional anesthesia. Blocking of the two major splanchnic nerves is preferable to the paravertebral method. Finster, who has done a good deal of this work, has had a very low mortality. Again, we do not have the same mortality from pulmonary complications. The field block in the abdominal wall is the method of choice. If you are going to use this method, inject regionally before you block off your main splanchnic nerve.

The subject was further discussed by Dr. Rosberg, who dwelt on the work done by the Mayo Clinic, and who brought up the question of a more general use of other anesthetics, such as ethylene gas.

St. Mary's Hospital Clinical Society (reported by Randolph G. Flood, secretary)—The regular staff meeting was held Friday evening, May 1, Dr. R. Topham presiding.

An interesting paper, accompanied by slides and patients, was presented by H. Spiro, subject: "Aneurysms of Thoracic Aorta." Among the more important points brought out by Spiro, was the differential diagnosis of diffuse dilation and aneurysm of the thoracic aorta. Of primary aid in the differentiation is the radiographic plate, taken with the patient in the right oblique position, which throws into marked relief any irregularity of any part of the aorta. This paper was discussed by Drs. Morris, Monica Donovan, and Edmund Butler.

SANTA BARBARA COUNTY

Santa Barbara County Medical Society (reported by Alex C. Soper, Jr., Secretary)—The May meeting of the society was a special one held at Lompoc, with the scientific program arranged by the physicians of the northern part of the county, and a complimentary dinner given by the Lompoc Chamber of Commerce, after several hours, during which they conducted members of the society about their beautiful valley. The chief point of interest was, of course, the works of the Celite Products Company, where mountains of "diatomaceous" chalk compound are being cut into for various commercial products, and sent all over the American continent and to Europe. Covering about 2000 acres, and extending to a known

depth of 1500 feet, this company employs and houses about 600 men, and has a well-equipped hospital and houses, and so forth, for its men.

The medical meeting was held at the American Legion hall, and was called to order at 9 p. m., President Nuzum in the chair. Owing to the lateness of the hour, and the long distance from Santa Barbara, no routine business was transacted, except a unanimous vote to endorse and support the formation in the county of a branch of the American Association for Medical Progress, starting under the auspices of Mr. George E. Coleman, the Santa Barbara bacteriologist.

Twenty-nine members were present, and the following guests: Dr. Bracken, former State Health Officer of Minnesota; Dr. Harris, Santa Barbara County Health Officer; Dr. Schwartz of Lompoc, Dr. Schultz and Dr. Blaisdell of Santa Paula.

Program—"New Method of Treatment of Eclampsia," Lysle McNeile, Los Angeles.

"Fungus Diseases of Human Beings," Roy Hammack, Los Angeles.

"Treatment of Abortion," W. D. Sink, Guadalupe.

"Five Cases of Acute Osteomyelitis," M. Thorner, Santa Maria.

Discussion of papers was held by Sansum, Spaulding, Sink, Pierce, Profant, Cummings, Ullmann, Eaton, Nuzum.

SONOMA COUNTY

Sonoma County Medical Society (reported by G. A. Hunt, secretary)—The Sonoma County Medical Society met in Santa Rosa Thursday, April 9. Eighteen members were present. The speaker of the evening was Dr. Emmet Rixford, who gave an address on "Ulcer of the Duodenum and Stomach." The entire evening was given to the discussion of this subject, and members who came many miles to the meeting considered themselves well paid.

TULARE COUNTY

Tulare County Medical Society (reported by John C. Paine, secretary)—The society accepted invitation of Dr. D. D. Nice of Three Rivers to dine with him and hold their monthly meeting at his beautiful ranch house, April 26.

Members present were Drs. Willey, McSwain, Fraser, Tourtillott, Melvin, Brigham, Nice, Preston, Edmonds, Betts, Seligman, Campbell, Zeller, Ginsburg, Tillottson, Todd, Lipson and Paine, with Drs. Hill and Furness as guests, in addition to Dr. J. H. Woolsey of San Francisco, the speaker of the day, and Dr. Fred De Lappe of Modesto, councilor of the district.

After a very bountiful repast, the members listened to an interesting talk by Dr. De Lappe in his capacity as councilor of the district, which contained much interesting information and was appreciated by all. Dr. Woolsey then gave a forty-five-minute talk on the "Treatment of Infections," which was enthusiastically received.

CHANGES IN MEMBERSHIP

New Members—Alameda County: David E. Froelich, Ben Stetson, Oakland; A. J. Howell, Berkeley.

Kern County—Lucille B. May, Bakersfield.

Los Angeles County—Edwin S. Budge, Robert A. Campbell, Elmer J. Lambert, J. S. McAtee, George H. Patterson, J. W. Pidcock, Warren Sheley, Pinne M. Welbourn, Louis Levin, Los Angeles.

Napa County—Harry V. Baker, George B. Todd, Napa; E. F. Donnelly, Imola.

San Benito County—Sanford W. Cartwright, Idria.

San Diego County—Julio Paez, William H. Wilson, San Diego; William R. Eastman, La Jolla.

San Francisco County—John R. O'Neill, Arthur Sonnenberg, Eugene M. McKevitt, J. Morrille George, Myrnie Ada Gifford, Alexander David McLean, San Francisco.

San Luis Obispo County—John W. Nielsen, San Luis Obispo.

Santa Barbara County—Horace Gray, Horace Hagen, Kent R. Wilson, Santa Barbara.

Transferred Members—Hans B. Christiansen, from Alameda County to San Francisco County; Lloyd A. Clary, from Contra Costa County to San Francisco County.

Resigned—C. E. Locke, Jr., H. H. Whitner, San Francisco County.

Deaths—Foye, Frank Alonzo. Died at Eagle Rock, April 28, 1925, age 44. Graduate of the College of Physicians and Surgeons of Los Angeles, 1912. Licensed in California the same year. Doctor Foye was a member of the Los Angeles County Medical Society, the California Medical Association, and the American Medical Association.

CORRECTION

It is pleasant to be able to correct an error that appeared in the Obituary column of the April Journal. The Orange County Medical Society lost one of their most active members, W. Leland Mitchell, M. D., not by death, as was erroneously published, but by reason of his removal to France, in connection with the Rockefeller Foundation.

CALIFORNIA ASSOCIATION OF PHYSIOTHERAPISTS

(Reported by B. H. Stenvig, secretary San Francisco branch)

The subject of the April meeting of the San Francisco branch of the California Association of Physiotherapists, held at St. Luke's Hospital, was nervous disorders and their treatment.

R. W. Harvey, M. D., spoke on the various nerve conditions and their treatment from a physiotherapy standpoint, stressing the use of hydrotherapy. He divided nervous disorders into the two classes of organic and functional. The organic class includes the spastic and flaccid types of paralysis, in both of which he advised the use of light massage after the first stage of soreness has worn off. The benefits of this form of treatment are twofold, the physical benefit in keeping up the nutrition of the affected parts and preventing deformities, and the psychical in keeping up the morale of the patient in his feeling that something is being done for him.

In the functional class he spoke of neurasthenia and hysteria. As a usual thing in neurasthenia some organic cause can be found and measures taken to remove the cause. The symptoms are headaches and a feeling of fulness in the back of the head and the eyes. Often there is some stomach trouble; the patient is easily tired; almost always insomnia exists, the muscles are tense, and the patient is continually fearing something that never happens. One of the first things to try to gain in the patient is relaxation. This can often best be gained by a course of warm tub baths and massage, the time of the bath and the temperature being regulated. At the same time other hygienic measures, such as diet, are taken. With few exceptions Dr. Harvey finds there is an improvement within two or three weeks.

Hysteria presents an entirely different case in that usually no organic cause can be found. Often some shock in childhood or certain environments act as trauma. With adults, excesses of various kinds will cause hysterical psychosis. In some cases the same treatment is successful in improving the condition, although this type is very much harder to treat.

Following Dr. Harvey's talk the meeting adjourned to the Physiotherapy Department at St. Luke's, where the technician in charge gave a short demonstration in hydrotherapy. For the baths which Dr. Harvey spoke of, the hammock or continuous bath, as it is sometimes called, is most effective. This is a tub with a canvas hammock slung in the tub in which the patient may rest. There is a rheostat for controlling the temperature of the water, it being possible to keep the same temperature for hours at a time if necessary. For the ordinary neurasthenic type the usual time is fifteen or twenty minutes at a temperature of 98 degrees or 100 degrees Fahrenheit. Maniacal patients are sometimes kept in for an hour or several hours, the purpose of the bath being to insure enough relaxation so that the patient can sleep.

Utah State Medical Association

GET TOGETHER

One of the high lights of the medical month was the banquet extended by the Salt Lake County Dental Society to the Salt Lake Medical Society at the Elks' Club on the night of May 4.

Not only was this a pleasant occasion from the standpoint of individual enjoyment, of good music, good entertainment and good food, but in its deeper indications of a friendly spirit existing between the two groups of that "get-together" spirit which more than anything else in life helps us to understand and appreciate one another in a sympathetic fashion.

We don't mean that either the dentists or doctors need sympathy either. That's not the point we're trying to reach. What we mean is that understanding, acquaintance with a man, his aims, objects, character, enable us to evaluate him and them in the truest sense. And the thing is true of nations as well as men. Many a man we do not like any too well we would find to be a pretty good scout if we knew him better, knew him as he really was, instead of forming our opinion of him snapshot.

And so these meetings, these broadening of acquaintance, these establishments of friendly relations are steps in the right direction. We're sure that every doctor who attended enjoyed the banquet. And surely it was a graceful gesture on the part of the dentists to furnish us food to eat after laboring to save our teeth. Anyway mouth conditions are a very important factor from the cradle to the grave.

WHA'SA MATTER, DOC?

It has been reported that in China a doctor is paid so long as his patient remains healthy and works without remuneration when he falls sick. I have heard this statement evoke laughter. But, what's funny about it. The Chinaman is not necessarily crazy because he does things differently from us. After all, what is the Chinaman doing but maintaining a prepaid insurance guaranteeing him medical attention when ill?

And we know all about insurance. We carry sick and accident policies, income insurance, and life. We insure ourselves against accident or sickness when neither sick nor hurt. We insure ourselves and our dependents against poverty or destitution when we are neither poor nor destitute. We insure against burglary before we have been burglarized. We insure our lives. And insurance is, after all, a gamble. The carrier bets that we won't be sick or hurt, or robbed, or incapacitated, or that we will live an average number of years, and we bet that we will or won't—and to win we have to lose.

Yet insurance is an excellent thing. It has mitigated a world of suffering and sorrow, and done much good. We're for it. We're for it so strong we would carry it further. Why not a sort of longevity insurance, or a thing that amounts to as much. How many men and women die a needlessly early death because of unsuspected, or neglected conditions which might have been retarded or cured if taken early enough?

Tire agencies offer free inspection service to help us avoid road accidents and, of course, to sell their goods. Battery agencies give battery inspection to help us get the most out of the little old box. About every so often we have our engines overhauled, inspected, and tuned. Fair enough.

But what about ourselves—the engine that makes the very difference to us between life and death—our bodies—their health. What if we, as physicians, would take a leaf from the book of the Chinese—what if we would educate our patients along the lines of a "physical inspection" as a means of keeping in condition before they are actually taken ill or faced by death itself?

We believe in prophylaxis, preach it, practice it in vaccination, immunization, quarantine. We believe that an ounce of prevention is worth the proverbial pound of cure. And yet we go on from year to year failing to emphasize the importance of the widest prophylactic field. Prophylaxis means prevention, and how better prevent a thing than discover it in its incipiency and abate it.

What, then, if as a step in this direction we, as physicians, should begin to educate our patients to come in about every so often, whether feeling in need of professional attention or not, and simply say, "Wha'sa matter, Doc?" Then give him an overhauling—learn whether there is anything the matter or not. If the answer is negative, well and good. The man goes away satisfied in the knowledge that he is in a good condition, actually buoyed and strengthened by the fact. But if there is really something the matter, then overhaul the engine at once, even though the trouble is but the smallest, faintest knock. Here is a real service physicians might and may yet render to their race. And surely it should be worth as much to a man to know that his teeth, his heart, his lungs, kidneys, liver or what not are in good condition as to be informed by a smiling mechanic that "the old boat is now hitting on all six."

In these days, when we are trying by lectures, written word, and radio to educate the public, why not educate them in the prevention of individual affliction insofar as we may, as well as in the present methods of attack and cure of disease? Why not seek to stress the fact that in this age, when as never before means of examination and diagnosis are at the disposal of the average physician—one of the wisest acts they can perform—one of the cheapest forms of insurance they can purchase—may both be attained by simply now and then going to their medical adviser's office, and, having gracefully and smilingly saluted the young lady office attendant, stroll on into the sanctum sanctorium and accost its occupant in some such fashion: "Good morning. Look me over and tell me wha'sa matter, Doc."

Utah News Notes (reported by J. U. Giesy, associate editor for Utah)—The officers of the Utah State Medical

Association met the members of the Boxelder Medical Association at a luncheon at the Commercial Club in Brigham. The visiting doctors were Sol G. Kahn, president; William L. Rich, secretary; J. C. Landenberger, councilor; W. D. Calderwood. Following the luncheon, the members of the state and local associations motored to Logan, where a scientific program was given by Dr. Calderwood. The officers of the Utah State Medical Association also visited the Utah County Society meeting at Provo, the Weber County Society at Ogden, and the Boxelder Society at Brigham City during the month. F. Steele delivered the scientific paper at Provo, and J. C. Landenberger at Ogden. Rich and Kahn spoke at Brigham City.

Salt Lake County physicians were the guests of the Salt Lake County dentists at the third annual dinner of the Salt Lake County Dental and Medical Societies held at the Elks' clubhouse. About 250 members of both societies were present.

The Holy Cross Clinical Association met at the hospital on the evening of April 20. The program was as follows: Gas Bacillus Infection, John Sugden; Intermittent Hydronephrosis, W. G. Schulte; Carcinoma of the Rectum, C. L. Shields.

Salt Lake County Medical Society (reported by M. M. Critchlow, secretary)—At the meeting of April 27, S. C. Baldwin presented a boy treated for lymphosarcoma of the neck four years ago, with a recent recurrence of cervical adenitis, and discussed the differential diagnosis. A. A. Kerr outlined the clinical history of a case of suppurating orchitis and epididymitis, and presented the pathological specimen.

The society was fortunate in having Emil Novak of the Department of Gynecology, Johns Hopkins University talk on "Uterine Bleeding." He divided the causes into three groups: First, those in which the bleeding is caused by a lesion in the pelvis; second, those in which the lesion is inflammatory, but not enough to cause bleeding itself; third, those in which there is bleeding in the absence of disease in the pelvis. The lecture was well illustrated by lantern slides.

W. R. Calderwood, E. F. Root, Ezra Rich of Ogden, William L. Rich, A. A. Kerr, and T. F. H. Morton took part in the discussion. In closing, Novak analyzed thoroughly the treatment of hyperplasia of the endometrium by curettage, x-ray and radium, and organotherapy.

President Brown announced that comparatively few doctors are taking advantage of the parking privilege extended by the police for the fee of $5.

W. R. Calderwood reported for the committee to supervise public lectures.

Radio Broadcasting—President John Z. Brown of the Salt Lake County Medical Society has appointed a committee to supervise public health lectures. This committee has arranged for members speaking in the name of the society to broadcast a health talk over the radio once a week. These talks have been broadcasted for several weeks and have proved to be very popular.

Simple Immediate Treatment for Vomiting—All patients suffering from symptoms of reverse peristalsis in the upper gastro-intestinal tract from various causes were given amounts of 2 per cent sodium chlorid solution varying from 50 to 200 cc. In every case there was immediate relief of symptoms, but in several cases the relief was transient. Edwin P. Lehman and Harry V. Gibson, St. Louis (Journal A. M. A.), suggest the possibility that the action is a local one, tending to establish forward peristalsis in the stomach, no matter what the cause of the reversal. It may be found that the expression of this effect in amelioration of symptoms depends on the intensity of the abnormal stimuli to reversal of peristalsis. The treatment is so simple and harmless that it deserves a trial by clinicians everywhere, with a view to confirming or disproving these observations.

If every potential mother would keep herself in suitable condition for successful pregnancy and triumphant motherhood, there would be more normal births and fewer sick and dying babies—a larger number of healthy mothers.—Ida Bailey Allen (Medical Review of Reviews).

Nevada State Medical Association

W. M. EDWARDS, M. D., Mason.....President
CLAUDE E. PIERSALL, M. D., Reno.....
Secretary-Treasurer and Associate Editor for Nevada

The 1925 Session of the Nevada Medical Association—The 1925 meeting of the Nevada State Medical Association will be held at the Elko General Hospital, Friday and Saturday, September 4 and 5, reports C. E. Piersall, secretary.

It has been announced to a number on our program that it would be September 11 and 12, but the dates are changed so that our program will not conflict with the Utah State Medical meeting and post-graduate course, which will be held September 7 to 12, inclusive.

Friday, September 4, we will have a luncheon at the General Hospital, and Friday evening at the theater a movie on pulmonary tuberculosis. Saturday evening we will have a real banquet at La Moille, such as we had there in 1921. Saturday will be devoted not only to papers, but to clinical demonstrations. Sunday, September 6, we will have a fishing trip, which the Elko County Society maintains may be the best that can be had anywhere in the United States.

The following is a quotation, in part, of Dr. W. A. Shaw's letter to the secretary, dated April 25, 1925: "We intend to have the finest meeting that has ever been put over in the state of Nevada. We put over a meeting in 1921 that we figured could be equaled, but not excelled. Reno apparently excelled our meeting at Bower's Mansion in numbers only. We, in Elko County, shall put on a meeting in September which will be written in the history of the Nevada Association and which will also be remembered enthusiastically by all the medical men who attend."

Our Nevada members are urged to present clinical cases, to write to your secretary for a tentative program, then decide what subject you will present or discuss. All members and visitors who are to present a paper or clinical demonstration are urged to send to the secretary a resumé of their subject as early as possible, so that those listed for discussion may be prepared for the same.

The Elko Society will provide space for exhibitors.

The Washoe County Medical Society, according to the report of Henry Albert, secretary, met in regular session at the Chamber of Commerce, April 12, President Vinton A. Muller presiding.

The minutes of the previous meeting of April 13, 1925, were read and approved.

Program—Dr. Carl L. Hoag of San Francisco addressed the society on "The Acute Abdomen." He divided the acute abdominal conditions into two large groups, namely: Those which are inflammatory from the beginning as, appendicitis, cholecystitis, etc., and second, those which are primarily traumatic and only secondarily infectious, as gunshot wounds, perforation of gastric ulcer, acute intestinal obstruction, etc. The following list of symptoms were discussed in detail, as they pertained to the two great groups in question: Onset (especially pain), chill, temperature, tenderness, vomiting, rigidity, flatus.

Paper was discussed by Brown, Albert, and Piersall.

Attendance—Members: Adams, Albert, Bath, Brown, Muller, Pickard, Piersall, Riley, Robison, Tees, Thompson, and Walker; also, Dr. Lehners of Reno, Mrs. Hoag of San Francisco, and Mrs. Muller of Reno.

The brain is the organ of thought, just as the stomach is the organ of digestion. It handles perceptions just as the stomach handles food, and is subject to all the physical laws which control the rest of the body. The brain must be exercised and thus given the zest of wholesome employment.—Chicago's Health Bulletin.

ANOTHER POPE TRAVELOGUE

Nairobi, April 10, 1925.

My dear Dr. Musgrave—Though we have not entered the game fields of Africa, I thought I should report progress.

Our transatlantic trip was surprisingly pleasant and smooth. Our five days in France entitle us to write a book on "What We Think of the French." Paris, naturally, interested us very little, and we passed through with nothing more than a deferential salute to her beauties.

Marseilles was a much more picturesque and villainous town. I never saw such a collection of strange and murderous-looking people as those on the waterfront—the dregs of the Mediterranean fit for deeds that are dark.

We liked the town and its surroundings the best of all France, and toured Provence with great pleasure.

Our voyage on the Mediterranean was the roughest we encountered, the sky being far from the sunny heavens one sees on the postcard. The paradox continued, fortunately, and the Red Sea and Gulf of Aden we found cool and delightful. This is usually the hottest sea journey that one can make. After seventeen days on the General Duchesne we appeared off the coast of Africa and experienced what had always seemed to me to be a figure of speech. We smelled the spice-ladened winds of Africa. The low palm-rimmed beaches were actually fragrant at a distance of several miles. It was like unrolling a Chinese matting in which incense had been packed.

The town of Mourbasa, where we landed, is an old Portuguese settlement many hundreds of years old. Its name means: the Island of Wars, and the old fortifications of Vasco Da Gama still guard the port.

Here we got the true color of the Occident. Somali, Swahili, Arabs, and a few British inhabit this amazing town. The children of the jungle, with all their fine primitive qualities, meet modern material culture as represented in Henry Ford's marvelous Kinetic apparatus. Wild-eyed Shenzis, from the bush, gaze with awe at the magic of the white man, but lose none of their dignity and noble bearing.

From Mombasa we traveled by rail to Nairobi, a trip of three hundred miles. Now we are outfitted and ready to start in the morning for Tanganyika. In three days we shall be lulled to sleep by the coughing grunt of the night-roving lions and the tittering wail of hyenas.

Leslie Simson received us here, and we already have our tent boys, gun-bearers, and provisions ready to start. The gun-bearers were somewhat reluctant to join us, till they saw our archery tackle and saw us shoot. Now we have them squatting on the veranda before us, sharpening arrows, enthusiastic to go.

Simson states very emphatically that we shall have every opportunity to come in contact with a large variety of game, including the king of beasts, and he has no qualms as to the outcome.

You shall hear of this soon.

Yours as ever,

SAXTON POPE.

Our Obsessions—Dean Johnston of the University of Minnesota says: "The greatest American obsession is the habit of going to school. A second great American obsession is the belief in equality. . . . The dogma appeared in the first sentence of our Declaration of Independence, 'All men are created equal.' *No American patriot believed that for a moment.* The instinct for sameness has played a prominent part in the development of our educational institutions. . . . The Chinese bind their girl's feet; we bind the whole child, body and soul. A third great obsession of our nation is the belief that the good things of life can be given to people. Parents fondly hope that they can give their children an education. This is quite impossible; as it is almost equally impossible to keep worthwhile young people from getting an education for themselves. We advise children to prepare themselves for law, medicine, engineering, dentistry, business—with a capital B—and for everything except the work that needs to be done."—Journal-Lancet.

California Board of Medical Examiners

SOME PROBLEMS AND ACTIVITIES OF THE BOARD OF MEDICAL EXAMINERS

(Reported by C. B. Pinkham, M. D., Secretary)

Report from Los Angeles states that on April 8, 1925, Seth M. Wells and James M. Fer Don were convicted of fraud in an oil promotion scheme and sentenced by U. S. Judge Paul J. McCormick to pay a fine of $1000 and serve one year in the Los Angeles county jail on each of two counts. Stay of execution was granted for thirty days to enable defendants' attorneys to prepare for filing an appeal.

The minutes of the Board of Medical Examiners disclose Seth M. Wells some years ago operated a traveling medicine show in California and elsewhere. His application for a license to practice in this state, based on reciprocity with Iowa, was denied at the February, 1924, meeting of the board after an extended hearing wherein his professional record was fully discussd.

It is reported that Francis D. Coltrin, M. D. of Fullerton, was arrested April 13, 1925, by U. S. Federal Narcotic Agent V. H. DeSpain for violation of the Harrison Narcotic Act, he having been alleged to have sold twenty to twenty-five grains of morphine to an addict operator, who paid him $25 in marked money. At the hearing of Dr. Coltrin before U. S. Commissioner Turney on April 14, 1925, he was held to answer under $5000 bond. At that time he testified he had given morphine to the addict, who stated he wanted it to enable him to make a trip to Texas; that he did not charge the addict, but the addicted wanted to give him $25, and when refused said addict left the money on the doctor's table.

Skigerosky Adachi, alleged to have been in business in Los Angeles for some time, ostensibly manufacturing handkerchiefs, was recently found to have displayed on the wall of his reception room an imposing diploma, conferring upon him the degree "Doctor of Bacteriology," said diploma being issued by the "International Physician and Surgeons' College of Micro-biology," dated Chicago, Illinois, February 2, 1925, and signed T. D. Hyland, M. D., president; P. Tempone, M. D., secretary.

"Dr." John F. Costa, Lemoore, California, was recently held to answer in the Superior Court on a charge of having practiced medicine without a license, it being alleged that John R. Mendez was prescribed for by defendant and, instead of recovering from his malady, became worse and eventually insane, so that he was committed to a state hospital. "Dr." Costa is reported to be at liberty on a bond of $5000.

Reports relate the arrest of George A. Bruning and H. C. Coulson, naprapaths of Los Angeles, on a charge of violation of the Medical Practice Act. It is related that they belong to a national association which will pay their fines, attorney's fees, etc., and that an attempt will be made by some twelve or thirteen naprapaths, now located in California, to obtain a separate board of examiners.

The theory of the naprapath is that various ailments are due to pressure on nerves, caused by tight ligaments in the spinal column, said theory being originated by Oakley Smith, who operates the Chicago College of Naprapathy, Chicago, Illinois.

R. H. W. Albrextondare, who not long since was convicted of violation of the Medical Practice Act in Santa Ana, California, following the death of two women patients, lost his appeal to the District Court of Appeals for a new trial; however, he has petitioned the Supreme Court for a hearing, and we understand the matter must be disposed of before April 19, 1925.

Dr. Albrextondare, who so far as can be ascertained has never studied medicine or any other system of treating human ailments, was given considerable newspaper notoriety about a year ago in connection with his troubles in Pasadena and Orange.

The San Francisco Chronicle of April 18, 1925, relates

that Wilbert LeRoy Cosper, self-styled bishop of an Oakland religious cult, was found guilty on April 17 in the Superior Court at Martinez of violation of the Medical Practice Act, but did not seem to be annoyed by the verdict and is quoted as having stated, "What is a fine of a few hundred dollars when one has been given a million dollars worth of publicity?" Cosper was charged with having held a clinic in the home of a Mrs. Dietrich, Richmond, California, who was about to become a mother. It is reported that "Dr." Cosper, with a number of students, made such a commotion in the home of Mrs. Dietrich that the husband is charged to have shouted, "Get out, you dirty dogs."

Cosper formerly had an office in the Pacific Building, San Francisco, when complaints were filed that he was alleged to charge a fee for treatment, which was reported to consist in his sitting before his patient with his eyes closed for a few minutes, and then a request that the patient return again at a certain time for another treatment.

Some years ago Cosper was also in considerable financial difficulty over a moving picture which he filmed and had produced at the Savoy Theatre, entitled "The Kingdom of Human Hearts." Shortly after the film was completed, his producer, J. Patrick Kennedy, called at the office of the Board of Medical Examiners, leaving a "certificate of ordination," which he stated Cosper had given him, said certificate conferring upon Kennedy the degree D. D. and C. P., certifying that Kennedy had been ordained a priest of the Christian Philosophical Church, and thereby was entitled to treat by prayer the sick and afflicted. At another time he created considerable publicity by staging a boxing bout in the pulpit of his church in Oakland.

It was reported that last year he was involved in other financial difficulties arising from an attempt of "several feminine followers to get back certain funds which they had advanced on notes to Cosper for the advancement of his cult."

The Sacramento Bee of April 15, 1925, relates that Dr. Earl Harlan of Colusa, a physician and surgeon, had been indicted by the federal grand jury on a charge of possession and sale of narcotics.

On March 17, 1925, Allen Mills, Chirothesian, Richfield, Tehama County, California, was charged with violation of Section 17 of the Medical Practice Act. According to the report of our investigator, Mills stated that he made "a positive diagnosis by the examination of the pulse, by examination of other parts of the person of the patient, and by what the defendant termed iridiagnosis."

Mills claims to be an ordained minister of the "Chirothesian Church of Faith, incorporated under the laws of California, August 2, 1917." In "The Chirothesian," a pamphlet published by the organization, it is related: "It is intended by the board of trustees of the church that the word 'Chirothesian' shall have as much significance as that of minister of an orthodox church or *as even that of 'M. D.'* * after any person's name." The pamphlet further relates that, although the original papers of incorporation were issued under the title "Church of Faith," later the word "Chirothesian" was adopted "by the board of trustees as the title under which the ordained ministers of the church should advertise and practice their healing work . . . and while working under this title, healers ordained to the work are *protected from annoyance by the State Medical Board.*" *

M. T. Larkin, a Chirothesian of Los Angeles, was charged with violation of the Medical Practice Act of January, 1925, and at the time of investigation his place of business is reported to have contained a large quantity of remedies, the bottles being labeled for various diseases, such as tumors, rheumatism, paralysis, cancer, etc. On his wall was a diploma from the Western College of Drugless Therapeutics and, according to information from the Department of Licenses, State of Washington, a letter from the Sanipractic Board of that state relates that the Western College of Drugless Therapeutics was a "fly-by-night" affair "apparently for the purpose of giving a few persons a sort of diploma."

Our investigator further reported that on the wall of Chirothesian Larkin's office was a sign reading, "We diagnose your ailments if you wish us to do so." Larkin, in answer to the question of our special agent as to how much his certificate of membership in the Chirothesian Church had cost him, is reported to have replied: "It cost me about $250 so far. I paid $75 at first, and as I don't go to church very often, I sent them $5 or $10 occasionally."

*Italics ours.—Editor.

Diploma Mill Indictments—Replying to a letter of inquiry from the Board of Medical Examiners with reference to this subject, Mr. I. M. Golden, assistant district attorney of San Francisco, writes:

"I beg to advise you that the cases have been dismissed upon the ground that the authorities of San Francisco have not given to the district attorney the needed funds with which to prosecute, to extradite witnesses, and to transport witnesses from other states to California. The record is clear that the district attorney and the Board of Medical Examiners did all that was humanly possible to bring the cases to trial."

Surely this is sufficiently illuminating without additional comment.

"Bishop" Cosper Given Ninety Days—"Bishop" Wilbert LeRoy Cosper, leader of the Christian Philosophical Institute of Oakland, and self-styled "apostle of the divine chemist," was sentenced recently by Superior Judge H. V. Alvarado in Martinez to ninety days in the county jail and a fine of $500 for violating the Medical Practice Act.

CALIFORNIA AND WESTERN MEDICINE discussed the "Bishop" and his alleged Philosophical Institute when the propaganda was at its height last year.

According to press dispatches an attempt may now be made by the Contra Costa followers of the convicted "Bishop," who, he says, number 1100, to recall Superior Judge Alvarado.

When Cults Are Forgotten—An isolated community of one thousand people had one physician. The data are not now available as to the number of spinal manipulators, testimonial shooters, drugless healers, nature friends, and what not shared the care of the community during relatively healthy times. We do know that when an emergency arose, when the results of the knowledge of the regular school of medical practitioners and those in other allied fields who have been so bitterly assailed and maligned by the opponents of medicine was needed, the whole world sat at its doorstep to watch through the press, to listen by the air, to compute on its maps, the trip against death. A small package was visualized by millions. Worthless glass vials assumed unheard of value because of their life-giving contents. Forgotten the vaunted merits of subluxation of vertebrae for nerves which never reach the spinal column. Disregarded the tenets of absent treatment. Water cures, mud cures, ice cures, are not mentioned.—Herman Goodman, M. D.

"What are the attractions of a career in life?" asks Doctor William Henry Welch, who then proceeds to answer by saying: "They lie, do they not, in the opportunities the career offers for service to mankind, in the congeniality of the work and in its rewards. The profession of medicine surpasses all others in its opportunities for service to our fellow-men. Besides this there are manifold fields of activity, appealing to the most varied personal inclinations and aptitudes, be these practical or scientific. The rewards of success in medicine, even of the highest success, lie not in money; they lie in the intellectual pleasure which one gets from his work as a physician, in the consciousness of service, in the relief of suffering, and in the cure and prevention of disease." Doctor Welch has just celebrated his seventy-fifth birthday, and so far as we have seen he has not told the newspapers how he managed it. In fact, Doctor Welch is partial to scientific journals for such messages as he has to give.

Clinical Notes and Case Reports

ADENOMYOMA, WITH THE INFILTRATIVE CHARACTERISTICS OF MALIGNANCY

By H. E. Butka, M. D., *Los Angeles*

The usual finding of adenomyomata is in the wall of the uterus with rather indefinite outline and with color almost that of the normal uterine wall. The finding of adenomyomata elsewhere is rather unusual. The case here presented is still more unusual in its relation to the surrounding organs.

No. 13485—White Memorial Hospital—Service of Dr. Thomason—Mrs. C. C., age 38 years; housewife. History of profuse menstrual flow for a few days and then scanty but continuous flow of four months' duration. Physical examination revealed perineum and cervix intact. Body of uterus quite firmly fixed and about 5 cm. in diameter, with a nodule apparently involving posterior wall of uterus and rectum. Laboratory findings revealed 10,200 leucocytes, 3¼ million red cells with 75 per cent of polynuclears. Wassermann, negative.

At operation three small fibroid nodules were found in the body of the uterus. One ovarian cyst measuring 5 cm. in diameter was present. Anterior to the uterus, between it and bladder and adhered to both is found a tumor mass measuring about 3 cm. x 5 or 6 cm. in size. This mass could be separated from the uterine wall, but it was found impossible to separate from the bladder wall, and necessitated the removal of the adherent portion of the bladder with the mass.

A similar nodule adherent to the rectum posterior to the uterus was found. It was impossible to remove this mass without removal of a portion of the rectal wall, and with the extensive surgery already completed it was thought best to leave this tumor mass for the present.

Pathological study reveals tumor anterior to uterus and adjacent to bladder wall to consist of a typical adenomyoma, small areas of stroma with glands of type found in endometrium. No evidence of malignancy found. The tumor mass invades bladder wall, leaving only traces of bladder muscle and the mucosa in involved area.

Other findings were: peritoneal and parovarian cysts, cyst of ovary, fibroids (small in size and three in number), and a chronic catarrhal inflammation of the appendix, with the endometrium in the resting stage.

Comment—Rapid section, using Terry's polychrome methylene blue, revealed the nature of this growth, and although the gross appearance suggested malignancy, more radical surgery was not done. Patient has recovered.

BISMUTH SUBNITRATE POISONING

REPORT OF A CASE

By C. W. Pierce, M. D., *Los Angeles*

There is a more or less prevailing view that bismuth subnitrate may be used with great freedom, both externally and internally, regardless of the fact that our attention has been repeatedly called to its danger. That the matter may again be brought to the attention of physicians, I wish to report the following case of bismuth poisoning:

Mrs. C., age 31, was admitted to the California Lutheran Hospital, September 19, 1924. Four months previously a tuberculous kidney had been removed by Doctor Franklin Farman. A fistula formed and persisted. Squibbs' 33 per cent bismuth subnitrate was used in the wound. Altogether during one month four ounces were used. The patient lived in the country and was not kept under close observation.

Three months after the operation she developed signs of salivation. Sloughing ulcers appeared in the mouth and blood was noticed in the urine. She consulted a dentist and was also treated by her local physician without the cause of the trouble being discovered.

The patient entered the hospital complaining of intense ptyalism, pains in the face, headache, abdominal pains, vomiting, diarrhea and hematuria. She was very weak and had lost several pounds in weight. The breath was extremely offensive, so much so that the odor could be noticed on entering the room, simulating a garlic odor. The pains in the face were severe. Examination showed a black or slate discoloration of the edges of the gums, the mucosa of the cheeks and lower edge of the tip of tongue. Severe stomatitis and gingivitis. Some of the ulcers were quite deep, penetrating to the deeper layers. Urinalysis showed granular and hyalin casts, pus and red blood cells.

Treatment consisted of daily injections of a 10 per cent solution of sodium thiosulphate, intravenously. Each dose contained ten cubic centimeters of the solution, and a total of four injections was given. A mouth wash was used to heal the gums. One loose tooth was extracted. The acute nephritis which had developed as a sequela of the bismuth poisoning began to subside immediately under the above treatment, and at the time of her dismissal from the hospital the kidney function was normal. Her mouth healed and general condition improved. The dark line under the tongue and discoloration of the mucosa of the cheek persisted and was still present a month after she left the hosiptal.

1501 South Grand Avenue.

Medicine Before the Bench

Findings and Comments of the Courts on Acts and Omissions of Doctors

(Editor's Note—*The law reports contain many interesting decisions, involving the reputations and fortunes of doctors. In this column in each issue a brief summary of one or more decisions and comments of the several courts of last resort upon the cases will appear. The matter will be selected by our general counsel, Hartley F. Peart, who, with Hubert T. Morrow, attorney for Southern California, will contribute from time to time.*)

In the most recent malpractice decision decided by our Appellate Court the importance of expert medical testimony to prove negligence on the part of a physician was emphasized. The judge before whom the case was tried instructed the jury that the opinions of the doctors who had testified as experts were merely advisory and that the jury was not bound to accept such opinions as true, but should accord them such weight as the circumstances warranted, or the jury might disregard such opinions entirely if they believed them to be unreasonable. The court held that this instruction was erroneous as, in effect, it instructed and permitted the jury to set up their own standard of treatment which they thought the physician should have given the case and permitted them to entirely ignore the expert testimony. The physician was charged with negligently failing to discover a fracture by reason of the fact that he took no x-rays. Two physicians testified that this was negligence. The court said:

"It necessarily follows . . . it was prejudicial error for the court to give the second instruction above set out, which it gave upon its own motion. For in this second instruction the court told the jury that they might disregard altogether the opinions of the experts testifying in the case if, from all the facts and circumstances in the case, they believed that such opinions were unreasonable. In other words, the court, in effect, instructed the jury that if there were facts and circumstances in the case, testified to by lay witnesses, which the jury believed and which rendered the opinions given in the case by expert witnesses unreasonable, then the jury were at liberty to reject altogether the opinions of the experts. As we have already noted, such is not the accepted rule, and to so instruct the jury was highly prejudicial to the rights of the appellants. . . . The judgment is therefore reversed."

CORRESPONDENCE

LIGHTS THAT ARE HIDDEN

An advertisement in a local *newspaper* stated that "few people who at some time or another have not suffered that terrific pain with 'neuralgia of the face' and yet not one in ten got instant relief with the remedies used or even understood the true cause of the ailment."

"Neuralgia is caused by pressure on the nerve fibers connected with the trifacial nerve of the face. This pressure is found in the neck. The small spinal segments in the neck are displaced enough to cause an impingement of those nerves, and neuralgia pain its the result. Relief is very certain under chiropractic adjustments; why suffer when there is no need of it? Let us explain how we can correct your ailment without the use of poisonous drugs."

E. L. Meyers, M. D., Chico, California, commenting on this says:

One who did not understand would say, "What is wrong with this advertisement?" First of all, it is a gross misstatement of facts, because the fifth cranial nerve or trifacial does not go near the neck; it is purely a cranial nerve having its origin within the skull, and its exit is through openings in the skull known as the "foramens, ovale rotundum and sphenoidal fissure and not between the vertebra of the *neck*," therefore, it could not be from vertebral misplacement causing an impingement upon the trifacial nerve.

We are, therefore, led to believe the person who wrote this advertisement belonged to the nine in place of the one who really understands the true situation. We who know and have made a lifetime study of conditions particularly due to disease, see the error not only in this advertisement, but in others of "wonder cures," patent medicines, so-called Chinese herb venders, and other cults that have taken root in America today.

Among the various "systems" of healing is the "osteopathic system," founded in Kirksville, Missouri, about thirty years ago. Their educational requirements at the beginning were very low, and are still deficient in quality or quantity of learning and upon the requirements for admission to other schools and colleges. Another "system" is chiropractic, with very low requirements for entry and only a short time for study—eighteen months. Whereas a regular medical student must study at the present time eight years, then after the eight years he is called in assembly and graduated; but he is still without the freedom of other "systems." He has a code of ethics, which is the bushel basket that forever hides his light. He must not advertise his individual ability to treat certain diseases, for if he does he is classed by his fellow-physicians as quack advertiser. Therefore, he has no way except his work to show his ability.

In my opinion, at the present time and age this is all wrong, as long as the class of advertising is true and not false. I think a medical man should be allowed this privilege without the odium of classification of *quack*. How is Brown to know the class and character of merchandise Smith has for sale without the medium of advertisement through the newspaper. Readers, stop and think of the conditions as they exist today! Who has founded and operates the hospitals of our land? Who, at great sacrifice to life and drudgery, has discovered the life-saving secrets, such as yellow fever, malaria, diphtheria, scarlet fever, diabetes, hydrophobia, tetanus or (lockjaw), smallpox, typhoid, and finally cancer in its early stages? The answer is the regular practitioner of medicine who has given his life to research work; and have they who have been the discoverers patented their ideas? *No.* It has been given to suffering humanity, without reward through the medium of the regular medical man.

Last, but not least, the physician gives his time and knowledge in establishing free clinics and health centers for the poor. Everything that has been discovered has been through exhaustive research of the regular medical man, and he is still working—working to add pleasant and comfortable years to human life by conquering the enemies of health.

"WHEN DOCTORS DISAGREE"

Under this caption (a quotation, by the way, from the San Francisco Daily News), are a few paragraphs in the May number of CALIFORNIA AND WESTERN MEDICINE. Why shouldn't doctors disagree? Disagreement has the authority of the greatest antiquity behind it. Adam and Eve disagreed with the Lord and were put out of the Garden of Eden. Some time later their sons disagreed and Cain killed Abel. As years went on the population became so disagreeable, individually and collectively, that the Lord sent the great flood to wipe off the earth. Centuries afterward, tribes and nations disagreed with each other and began warfare. To settle disagreements between individuals our courts were founded. Man disagreed with the circumstances surrounding animal life and began to wear cloths, live in houses, and cook his food. If his food disagreed with him, or the weather, or he got a disagreeable hurt, he felt the need of human aid. Hence, the founding of the profession of medicine and surgery.

In the Dorothy Ellingson case it is reported that Dorothy disagreed with her mother and then shot the mother. At the trial one set of attorneys bitterly disagreed with another lot of attorneys. Dorothy seemed to disagree with everybody in the courtroom, and the judge seemed perturbed also. Why did the News editor not notice some of these other disagreements, but single out the doctors for comment? Our civilization is founded on disagreements. Disagreement is the biggest and most popular thing in the world today. Any Democrat or Republican will swear to the truth of this statement.

ETHAN H. SMITH.

528 Flood Building, May 12, 1925.

To the Editor—In Dr. Miller's article on "Ringworm of the Scalp," in the March number of CALIFORNIA AND WESTERN MEDICINE, I found no mention made of quartz light therapy. This was a surprise to me, as I have had very good results with it in treating fungus infections.

A young man who had a very bad case of tinea barbae, covering nearly two-thirds of the beard region, of two months' duration was completely cured by two treatments carried to the point of vesication.

A young man of 16, with a skin lesion on the thigh and inguinal adenitis of four months' duration, declared by the pathologist to be a yeast infection, was immediately benefited and permanently cured by three weeks' treatment with quartz light.

The almost immediate improvement and ultimate entire cure in these cases, as well as others of minor degree of infection has converted me completely to the use of quartz light in all fungus infections.

I would like to know the experience of others in the treatment of such cases, for if quartz light will cure ringworm even of hairy regions, why risk x-ray?

F. F. ABBOTT, M. D.

Ontario, California.

Doctor Miller's reply:

"I think the following will answer the enclosed communication:

"The title of my article was 'Ringworm of the Scalp.' The discussion was, therefore, limited to fungus infections of the scalp. In the treatment of the disease in this location, quartz light therapy has not been found to be of value.

In the treatment of kerionic fungus infections of the bearded region and in blastomycosis or coccidiodes of the skin, quartz light therapy is undoubtedly of some value. However, I have never seen or read of any such rapid cures in these stubborn infections as Dr. Abbott reports. I am sure that a more detailed clinical and bacteriological report along with the technique of treatment of his patients would be welcomed by all of us.

Sincerely yours,

HIRAM E. MILLER."

MEDICAL STRAWS

By THE EDITOR

Experience is fallacious and judgment difficult

What Does This Signify?—"The school health agencies now control the means of communicable disease prevention and control," says an official publication of the Department of Education. "In other words," continues the author, "the school health service, including its staff of physicians, dentists and nurses, is best prepared to handle most of the positive health and physical efficiency program of the school."

LACK of law enforcement is a far worse thing than lack of laws. Our metropolitan towns of today and our Western wildernesses of yesterday combine their annals in recording conclusively this truth. Metropolitan crime statistics and the history of vigilance committees prove it. In the cities feeble enforcement encourages, protects, and multiplies our modern criminal population.—John Hays Hammond.

AS LONG as children—and dogs—take naturally and at once to me, I am quite willing to be called a bad mixer.—Percy Fridenberg, M. D.

Gratitude in Action—We give freely of our time to the clinics under the mantle of charity, and the prow of the Ship of State bunts us in the seat of the pants for being in the way.—Medical Pocket Quarterly.

In Which Class Are You?—If you are a partisan, you have one chance in two of being right. If you are a neutral, you have no chance of being right—Clarence Darrow.

Worth Pondering—Some of our alleged health experts have adopted the ambitious policy of immortality for us all. But the facts remain that the centenarian lives half his life *after the full enjoyment of it has died*, and that the much greater proportion of old people is hardly likely to make for social vigor. The extension of the average length of life is filling the streets with the aged, and the falling death rate, bringing in its train a falling birth rate, is making our children grow scarcer.—E. M. Nicholson.

If This Is True, Why Educated Doctors?—"The ferreting out of beginning physical defects and beginning communicable conditions," says the California State Board of Health Weekly Bulletin, "can be done very effectively by the teacher."

The ferreting out of beginning physical defects is the most difficult of all phases of the practice of medicine.

"The treatment of drug addiction is a doctor's job."—Louise B. Deal, M. D.

More Important Than Living Long—Half the misery of human life might be extinguished by mutual offices of compassion, benevolence, and humanity.—Joseph Addison.

WE ARE prone to discuss medical matters from the standpoint of their elaborate and conspicuous episodes among the well-to-do or the brilliant and well-co-ordinated activities of hospital life. It must be borne in mind that the mass of medical experience lies among the working people.—Henry B. Faville.

SHAW lies brilliantly, impartially, and epigrammatically, about soldiers (Arms and the Man), physicians (Doctor's Dilemma), physical love (Devil's Disciple) and preventive medicine (Prefaces), and however successful this brilliancy may be with the general public, he discredits himself, as far as essential honesty is concerned, with those who are in the habit of facing things as they are.—Medical Review of Reviews.

He was Ill When He Said It—" 'Occasionally only do we meet with an example of vigorous health continued to old age; hourly do we meet with examples of acute disorder, chronic ailment, general debility, premature decreptitude. Not to dwell on the natural pain, the weariness, the gloom, the waste of time and money thus entailed; only consider how greatly ill health hinders the discharge of all duties, makes business often impossible, and always more difficult; produces an irritability fatal to the right management of children, puts the functions of citizenship out of the question; and makes amusement a bore.' "—Herbert Spencer.

University Publicity—Are our universities destined to replace barbershops as centers for the dissemination of jokes? It begins to look like it, doesn't it?

Opportunity

They do me wrong who say I come no more
When once I knock and fail to find you in,
For every day I stand outside your door
And bid you wake and rise to fight and win.

THE index of community intelligence is represented in the percentage of voluntary vaccination. Only children and fools *must* be protected against smallpox.—Ohio Health News.

"Pity 'Tis True"—An unscrupulous physician talking to a sensation-seeking reporter can do more harm to scientific medicine in one interview than can be undone by the united effort of a hundred conscientious and capable physicians talking to the public.—Indiana Medical Journal.

"THE only advertising that will redound to the professional credit of the physician is that which he does not do, but which he gets, and which he cannot keep from getting as the result of efficiency in the practice of his profession in a professional manner."

NO CIVILIZATION can long endure a universal disdain for work, for labor.—Dean J. B. Johnston, University of Minnesota.

THE young doctor having been thoroughly grounded in life as it is not, and taught to think in terms of a language that adapts itself easily to ambiguity, can it be wondered that he does not understand what a practical world wants to buy from him and really what he has to sell. Let us not fool ourselves, as doctors we sell knowledge and service.—New Orleans Medical and Surgical Journal.

"SYPHILIS," states a writer (New York State Journal of Medicine), "is the second principal cause of the cardio-vascular diseases which are now by far the leading causes of death in the United States. Lamb estimated cardiac involvements to be present in 50 to 75 per cent of all syphilitics."

And still the crusaders are out to prevent heart disease by diet!